JOURNAL OF PHARMACEUTICAL SCIENCES

A publication of the American Pharmaceutical Association

INDEX TO AUTHORS
INDEX TO SUBJECTS

VOLUME 63
JANUARY TO DECEMBER, 1974

Published monthly under the supervision of the Board of Trustees

MARY H. FERGUSON
Editor

L. LUAN CORRIGAN
Assistant Editor

SHELLY ELLIOTT
Production Editor

CHRISTINE L. BAILEY
Copy Editor

SAMUEL W. GOLDSTEIN
Contributing Editor

EDWARD G. FELDMANN
Managing Editor

EDITORIAL ADVISORY BOARD

Lynn R. Brady
Raymond E. Counsell
Gerhard Levy
Carl J. Lintner, Jr.
G. Victor Rossi
Eugene E. Vogin

© Copyright 1974 by the American Pharmaceutical Association; all rights reserved.

AUTHOR INDEX

A

Abbasi, M. M., *see* Nasr, M., 1314
Abbatiello, E. R., alteration of maternal behavior in mice following administration of cyproterone acetate, 152
Abdine, H., *see* Soliman, S. A., 1767
Abdou, M. A.-F., comparative study of seven media for sterility testing, 23
Aboul-Enein, H. Y., *see* Lindsay, R. H., 1383
Abraham, D. J., *see* Aynilian, G. H., 536
Abu-Eittah, R., Seif El-Nasr, M. M., and Amer, M. M., vanadyl complexes of antiamebic drugs: electronic absorption spectra, 1866
Afifi, A., *see* Taha, A. M., 395
Agurell, S., *see* Bruhn, J. G., 574
Ahmad, A. K. S., *see* Taha, A. M., 1853
Alaimo, R. J., and Goldenberg, M. M., synthesis and anti-inflammatory evaluation of 2-(substituted amino)quinolizinium bromides, 1939
Aleo, J. J., influence of sodium salicylate on metabolism of lathyrogen-treated 3T6 fibroblasts in culture, 1211
Alexander, K., *see* Kaplan, S. A., 527
Ali, B., *see* Dwivedi, C., 1124
——*see* Parmar, S. S., 872
Allen, A. E., and Gupta, V. D., stability of hydrocortisone in polyethylene glycol ointment base, 107
Allen, L., quantitative determination of carisoprodol, phenacetin, and caffeine in tablets by near-IR spectrometry and their identification by TLC, 912
Allen, L. M., and Creaven, P. J., binding of a new antitumor agent, thalicarpine, to DNA, 474
Almonc, H. R., Jr., *see* Janicki, C. A., 41
Amann, A. H., Lindstrom, R. E., and Swarbrick, J., factors affecting water vapor transmission through polymer films applied to solid surfaces, 931
Amer, M. M., *see* Abu-Emittah, R., 1866
Amidon, G. L., comparison of theoretical, absolute interaction energies with heats of complexation in carbon tetrachloride, 1514
——structure and reactivity of theobrominate and theophyllinate complexes with methyl *trans*-cinnamate, 1524
——theoretical calculation of heats of complexation in carbon tetrachloride, 1520
——Yalkowsky, S. H., and Leung, S., solubility of nonelectrolytes in polar solvents II: solubility of aliphatic alcohols in water, 1858
Amirjahed, A. K., and Blake, M. I., relationship of composition of nonaqueous binary solvent systems and dielectric constant, 81
——and Blake, M. I., titration of acids and acid mixtures in benzene–acetonitrile binary solvent system, 696
Ammar, E. M., *see* Taha, A. M., 395
Amos, H. E., *see* Digenis, G. A., 745, 751
Ampolsuk, C., Mauro, J. V., Nyhuis, A. A., Shah, N., and Jarowski, C. I., influence of dispersion method on dissolution rate of digoxin–lactose and hydrocortisone–lactose triturations I, 117
Anderson, R. A., *see* Madsen, B. W., 777
Anderson, V. L., *see* Farid, N. A., 1492
Arison, B. H., *see* Trenner, N. R., 1312
Armstrong, N. A., and March, G. A., quantitative assessment of surface mottling of colored tablets, 126
Arvesen, J. N., *see* Ithakissios, D. S., 146, 952
Asgharian, R., *see* Laiezari, I., 1331
Ashton, W. T., *see* Priest, D. G., 1158
Asker, A. F., and Whitworth, C. W., effect of formulation and processing techniques on release of salicylic acid from ointments, 1774
——and Whitworth, C. W., evaluation of dimethylpolysiloxane fluids as vehicles for various pharmaceuticals I: effect on stability and dissolution of aspirin, 1630
——and Whitworth, C. W., interaction of salicylic acid with adenosine and adenosine triphosphate: potential mechanism of intensifying aspirin-induced GI blood loss, 966
——*see* Whitworth, C. W., 1618, 1790
Asleson, G. L., Stoel, L. J., Newman, E. C., and Frank, C. W., NMR spectra of tetracyclines: assignment of additional protons, 1144
Attwood, D., Florence, A. T., and Gillan, J. M. N., micellar properties of drugs: properties of micellar aggregates of phenothiazines and their aqueous solutions, 988
Augsburger, L. L., *see* David, S. T., 933
——*see* Salpekar, A. M., 289
Autian, J., *see* Mir, G. N., 376
Auyong, T. K., *see* Singh, S. P., 960
Aynilian, G. H., Duke, J. A., Gentner, W. A., and Farnsworth, N. R., cocaine content of *Erythroxylum* species, 1938
——Weiss, S. G., Cordell, G. A., Abraham, D. J., Crane, F. A., and Farnsworth, N. R., *Catharanthus* alkaloids XXIX: isolation and structure elucidation of vincoline, 536
——*see* Thompson, E. B., 1936
Ayres, J. W., and Laskar, P. A., diffusion of benzocaine from ointment bases, 1402
——and Laskar, P. A., evaluation of mathematical models for diffusion from semisolids, 351
Azarnoff, D. L., *see* Pentikäinen, P. J., 1431
——*see* Wan, S. H., 708

B

Babcock, P. A., and Segelman, A. B., alkaloids of *Lindera benzoin* (L.) Blume (Lauraceae) I: isolation and identification of laurotetanine, 1495
Babić, I., *see* Korunčev, D., 475
Baenziger, N. C., *see* Lin, H. O., 145
Bailey, K., Boulanger, J. G., Legault, D., and Taillefer, S. L., identification and synthesis of di-(1-phenylisopropyl)methylamine, an impurity in illicit methamphetamine, 1575
Baker, K. M., Coerezza, M., Del Corona, L., Frigerio, A., Massaroli, G. G., and Sekules, G., metabolism of 1-methyl-5-nitro-2-(2′-pyrimidyl)imidazole, 293
Bal, A. S., and Joshi, S. B., *Trapa bispinosa* starch as a tablet disintegrant, 473
Ballard, B. E., pharmacokinetics and temperature, 1345
Banes, D., *see* Graham, J. H., 763
Banker, G. S., *see* Parker, J. W., 119
Barry, B. W., and Gray, G. M. T., coacervation of alkyltrimethylammonium bromides by tartrazine, amaranth, carmoisine, and erythrosine, 548
Barry, H., III, *see* Sofia, R. D., 939
Barthwal, J. P., *see* Misra, R. S., 401
——*see* Singh, S. P., 1948
Bartlett, M. F., *see* Zak, S. B., 225
Bass, G. E., *see* Clayton, J. M., 230
Bass, P., *see* Gaginella, T. S., 790, 1849
Bates, T. R., Young, J. M., Wu, C. M., and Rosenberg, H. A., pH-dependent dissolution rate of nitrofurantoin from commercial suspensions, tablets, and capsules, 643
Bayomi, S. M., *see* Taha, A. M., 395
Beasley, M., *see* Skierkowski, P., 964
Becker, C. H., *see* Croswell, R. W., 440
——*see* Jurgens, R. W., Jr., 443
Bederka, J. P., Jr., *see* Farnsworth, N. R., 457
Bej, A. J., *see* Wolters, R. J., 1379
Bekersky, I., *see* de Silva, J. A. F., 1440, 1837, 1943
Bell, C. L., *see* Tin-Wa, M., 1476
Bell, S. C., *see* Nudelman, A., 1880
Belvedere, G., *see* Frigerio, A., 1536
——*see* Pantarotto, C., 1554
Ben-Zvi, Z., Burstein, S., and Zikopoulos, J., metabolism of Δ^1-tetrahydrocannabinol by mouse hepatic microsomes: identification of 6α-hydroxytetrahydrocannabinol, 1173
Beres, J. A., Coons, T. L., and Kaelin, M. J., synthesis and antibacterial properties of substituted decylbarbituric acids, 469
Berger, J., *see* Feldman, S., 454
Bernard, B. K., and Finkelstein, E. R., effect of vehicles on reduction of brain norepinephrine by α-methyltyrosine, 1637
Bertele, R., *see* Breyer, U., 1842
Besch, H. R., Jr., *see* Naidoo, B. K., 1391
Bevelle, C., *see* Tin-Wa, M., 1476
Bhattacharya, S. K., Ghosal, S., Chaudhuri, R. K., Singh, A. K., and Sharma, P. V., chemical constituents of Gentianaceae XI: antipsychotic activity of gentianine, 1341
Bianchi, R., *see* Salmona, M., 222
Biesemeyer, M. E., *see* Graham, J. H., 763
Biggs, D. F., *see* Walter, L. J., 1754
Bikhazi, A. B., and Hajjar, J. J., mechanistic studies on effect of cholate concentration on cholesterol uptake by isolated rabbit intestine, 1703
——*see* Tayim, H. A., 1469
Billman, J. H., and Roehrig, G. R., preparation of 4-[*p*-[bis(2-chloroethyl)amino]phenyl]butyramides as potential antitumor agents I, 1487
Birner, J., determination of sodium penicillin G in disodium carbenicillin preparations, 603
Bishop, E. A., *see* Hersey, J. A., 408
Black, D. B., *see* Lovering, E. G., 671, 1224, 1399
Blake, M. I., Bode, D., and Rhodes, H. J., comparison of analysis of isoniazid and its dosage forms by several methods, 1303
——Bode, D. W., and Rhodes, H. J., nonaqueous titration of procainamide hydrochloride, 1645
——Hunt, J., and Rhodes, H. J., analysis of acetaminophen and barbiturate combinations by differentiating nonaqueous titration, 89
——*see* Amirjahed, A. K., 81, 696
Blaug, S. M., and Hajratwala, B., kinetics of aerobic oxidation of ascorbic acid in the presence of nonionic surfactants, 1240
——and Huang, W.-T., browning of dextrates in solid–solid mixtures containing dextroamphetamine sulfate, 1415
Block, L. H., *see* Parker, J. M., 970
Blum, K., *see* Hamilton, H. E., 741
Boccali, D., *see* Marchi, E., 1299
Bode, D., *see* Blake, M. I., 1303, 1645
Bodin, J. I., *see* Rabinowitz, M. P., 1601
——*see* Reisberg, P., 1586
Bodor, N., Kaminski, J. J., Worley, S. D., Colton, R. J., Lee, T. H., and Rabalais, J. W., photoelectron spectra, hydrolytic stability, and antimicrobial activity of *N*-chlorinated piperidines, 1387
Boehme, D. H., *see* West, N. R., 417
Bogdansky, S., and Lehn, P. J., effects of γ-irradiation on 2-chloroethanol formation in ethylene oxide-sterilized polyvinyl chloride, 802
Boltralik, J. J., *see* Brian, B., 633
Bonardi, G., *see* Vidi, A., 1130
Borke, M. L., *see* Parker, J. M., 970
Born, G. S., *see* Dirksen, J. W., 637
——*see* Farid, N. A., 1492
——*see* Foulke, J. D., 563
——*see* Ithakissios, D. S., 146, 952
Borne, R. F., Clark, C. R., and Waters, I. W., cholinergic activity of 2-azabicyclo[2.2.2]octane analogs of acetylcholine, 1559
——Peden, R. L., Waters, I. W., Weiner, M., Jordan, R., and Coats, E. A., anti-inflammatory activity of *para*-substituted *N*-benzenesulfonyl derivatives of anthranilic acid, 615
Borodkin, S., and Tucker, F. E., drug release from hydroxypropyl cellulose–polyvinyl acetate films, 1359
Bossi, A., *see* Pantarotto, C., 1554
Bottari, F., Di Colo, G., Nannipieri, E., Saettone, M. F., and Serafini, M. F., influence of drug concentration on *in vitro* release of salicylic acid

from ointment bases, 1779
Bouche, R., synthesis of 5,5-diethyl-2-ethoxytetrahydro-4,6-pyrimidinedione, 1633
Boulanger, J. G., *see* Bailey, K., 1575
Bourne, D. W. A., Higuchi, T., and Pitman, I. H., chemical equilibria in solutions of bisulfite salts, 865
Bousquet, W. F., *see* Hadley, W. M., 57
Boutagy, J., *see* Thomas, R., 1649
Bowen, S., *see* Lindsay, R. H., 1383
Boxenbaum, H. G., and Riegelman, S., determination of isoniazid and metabolites in biological fluids, 1191
Brassard, R., *see* Pelletier, O., 1138
Brenner, I. A., *see* Reisberg, P., 1586
Brent, D. A., de Miranda, P., and Schulten, H.-R., field desorption mass spectrometry of azathioprine and its metabolites, 1370
Bres, J., *see* Hinderling, P. H., 1684
Breyer, U., Prox, A., Bertele, R., and Gaertner, H. J., tissue metabolites of trifluoperazine, fluphenazine, prochlorperazine, and perphenazine in the rat: identification and synthesis, 1842
Brian, B., Boltralik, J. J., Thom, L., and Zeleznick, L. D., ophthalmic bioavailability I: corneal penetration of aceclidine (3-acetoxyquinuclidine) into the rabbit eye using a perfusion technique, 633
Briley, M. R., *see* Otani, T. T., 1253
Brochmann-Hanssen, E., *see* Nunes, M. A., 716
Brodasky, T. F., and Sun, F. F., determination of clindamycin 2-palmitate in clinical human serum samples, 360
Brooke, D., dissolution profile of log-normal powders II: dissolution before critical time, 344
Brooks, M. A., *see* de Silva, J. A. F., 1440, 1943
Brown, L. W., GLC determination of clindamycin and related compounds, 1597
——Hsi, R. S. P., and Forist, A. A., mechanisms of hydrolysis of salicylanilide *N*-methylcarbamates, 459
Brown, M. L., and Metheany, J., use of 8-anilino-1-naphthalenesulfonic acid in radioimmunoassay of triiodothyronine, 1214
Bruce, R. A., *see* Levy, R. H., 1958
Bruce, R. B., Maynard, W. R., Jr., and Dunning, L. K., oxyphenbutazone and phenylbutazone determination in plasma and urine by GLC, 446
Bruhn, J. G., and Agurell, S., Cactaceae alkaloids XVIII: two new alkaloids from *Coryphantha calipensis* H. Bravo, 574
Brumleve, S. J., *see* Misra, R. S., 401
——*see* Parmar, S. S., 356
Buckley, J. P., *see* Jandhyala, B. S., 1497
——*see* Solomon, T. A., 511, 1109
Buelke, J., *see* Mole, M. L., Jr., 1169
Burke, D., Venturella, V. S., and Senkowski, B. Z., selective determination of phenylpropanolamine hydrochloride in pharmaceutical dosage forms by reaction with ninhydrin, 269
Burke, D. H., and Mann, D. E., Jr., thiazine dye antagonism of opioid lethality in mice, 451
Burks, T. F., *see* Jacobs, G. R., 787
Burstein, S., *see* Ben-Zvi, Z., 1173
Burton, B. A., *see* Powell, D. R., 1290

C

Caballes, L., *see* Dave, C., 347
Cadwallader, D. E., *see* Ku, S.-H., 60
Caldwell, H. C., dissolution of lithium and magnesium from lithium carbonate capsules containing magnesium stearate, 770
Campion, D. S., and Olsen, R., measurement of drug displacement by continuous ultrafiltration, 249
Cantwell, F. F., Domjan, M., and Hiskey, C. F., specific analysis for homatropine methylbromide in syrups, 599
Capomacchia, A. C., Casper, J., and Schulman, S. G., valence tautomerism of singly protonated 9-aminoacridine and its implications for intercalative interactions with nucleic acids, 1272
——*see* Schulman, S. G., 876
Carlin, J. R., *see* Trenner, N. R., 1312
Carlson, R. G., *see* Kaiser, D. G., 420
Carlton, W. W., *see* Morgan, H. K., 1759
Carstensen, J. T., stability of solids and solid dosage forms, 1
——and Patel, M., particle-size distributions of milled granulations and powders, 1494
——*see* Nelson, E., 755
——*see* Steiner, G., 1395
Caruso, J. A., *see* Davis, G. M., 1136
Casper, J., *see* Capomacchia, A. C., 1272
Casu, B., and Ventura, P., simple and specific assay of penicillins by IR spectrophotometry in deuterium oxide and dimethyl sulfoxide solutions, 211
Catania, P. N., and King, J. C., formulation and *in vitro* evaluation of anti-infective dry foams, 1483
Cates, L. A., and Gallio, R. L., phosphorus–nitrogen compounds XVI: phosphoramantadine derivatives, 1480
——and Lemke, T. L., phosphorus–nitrogen compounds XVIII: hydrazides and thiosemicarbazides, 1736
——*see* Cramer, M. B., 793
——*see* Gupta, V. D., 93
Cavero, I., *see* Solomon, T. A., 511
Cella, J. A., preparation of 2-methyl-3-(2-hydroxymethyl)phenyl-4(3*H*)-quinazalone: a metabolite of methaqualone, 1627
Chafetz, L., and Chen, T. M., enhancement of optical rotation of levodopa by cyclization, 807
——Tsilifonis, D. C., and Moran, C., colorimetric determination of betamethasone benzoate in topical gel preparation by Lewbart–Mattox method, 1771
——*see* Turdiu, R., 78
Champney, R., Ferguson, N. M., and Ferguson, G. G., selected pharmacological studies of *Luffa operculata*, 942
Chandler, R. F., *see* Safe, L. M., 464
Chang, B.-L., Haney, W. G., Jr., and Nuessle, N. O., sterilization of selected colorants by cobalt-60, 758
Chang, T. L., *see* Nelson, G. L., 1959
Chang, T.-M. (C.), and Ferguson, N. M., separation of anthraquinone glycosides and aglycones using electropaperography, 1316
Charette, C., *see* Midha, K. K., 1234, 1244, 1751
Chasseaud, L. F., *see* Down, W. H., 1147
Chatten, L. G., Moskalyk, R. E., Locock, R. A., and Schaefer, F. J., nonaqueous titration of methaqualone and its dosage forms, 1294
——*see* Locock, R. A., 1896
Chaturvedi, A. K., *see* Parmar, S. S., 356
——*see* Verma, M., 1740
Chaudhari, A., *see* Singh, S. P., 1948
——*see* Verma, M., 1740
Chaudhary, A., *see* Parmar, S. S., 356
Chaudhuri, R. K., *see* Bhattacharya, S. K., 1341
——*see* Ghosal, S., 944, 1286
Chen, C. C., *see* Lim, J. K., 559
Chen, L.-Y. A., *see* Kertesz, J. C., 880
Chen, T.-M., *see* Chafetz, L., 807
Cheng, C. C., novel common structural feature among several classes of antimalarial agents, 307
Chien, Y. W., and Lambert, H. J., controlled drug release from polymeric delivery devices II: differentiation between partition-controlled and matrix-controlled drug release mechanisms, 515
——Lambert, H. J., and Grant, D. E., controlled drug release from polymeric devices I: technique for rapid *in vitro* release studies, 365
——Lambert, H. J., and Karim, A., comparative binding of disopyramide phosphate and quinidine sulfate to human plasma proteins, 1877
Chiou, C. Y., antagonism of neuromuscular actions of hexamethonium by choline precursors, 305
Chiou, W. L., and Hsiao, J.-H., fluorocarbon aerosol propellants II: loss in containers and its implications for quantitative analysis, 1614
——and Onyemelukwe, I., simple modified colorimetric method for total salicylate assay in urine after salicylate administration, 630
——*see* Hsiao, J., 1776
——*see* Niazi, S., 532
Chowdhury, B. K., *see* Kapadia, G. J., 1339
Chowhan, Z.-U.-D. T., and Higuchi, W. I., model transport studies utilizing lecithin spherules IV: transport of D-glucose in spherules prepared from lecithin, dicetyl phosphate, and cholesterol, 1428
——and Poulsen, B. J., evaluation of mathematical models for diffusion from semisolids, 1808
Chrai, S. S., and Robinson, J. R., ocular evaluation of methylcellulose vehicle in albino rabbits, 1218
——Makoid, M. C., Eriksen, S. P., and Robinson, J. R., drop size and initial dosing frequency problems of topically applied ophthalmic drugs, 333
Christian, J. E., *see* Morgan, H. K., 1759
Chu, S., Hines, N. L., and Coviello, D. A., new derivatives of 2-alkoxyiminoalkylmercaptans as potential radioprotective agents, 1786
Clark, C. R., *see* Borne, R. F., 1559
Clarke, D. E., *see* Jandhyala, B. S., 1497
Clarke, E. A., *see* Hersey, J. A., 408
Clayton, J. M., Bass, G. E., Purcell, W. P., and Thompson, C. C., comparison between theoretical and experimental electric dipole moments of selected *N,N*-dimethylaniline derivatives, 230
Coats, E. A., *see* Borne, R. F., 615
Cobby, J., Mayersohn, M., and Walker, G. C., influence of shape factors on kinetics of drug release from matrix tablets I: theoretical, 725
——Mayersohn, M., and Walker, G. C., influence of shape factors on kinetics of drug release from matrix tablets II: experimental, 732
Cochran, K. W., *see* Rao, G. S., 471
Cochran, T. G., *see* Parker, J. M., 970
Coerezza, M., *see* Baker, K. M., 293
Cohen, J. L., Lee, W., and Lien, E. J., dependence of toxicity on molecular structure group theory analysis, 1068
Colaizzi, J. L., *see* Jaffe, J. M., 1256
——*see* Klink, P. R., 1231
——*see* Pagay, S. N., 44
Coldwell, B. B., *see* Thomas, B. H., 1367
Cole, J. R., *see* Jolad, S. D., 1321
Collins, C. H., *see* Novotny, J., 1264
Colton, R. J., *see* Bodor, N., 1387
Contractor, A. M., Snyder, J. M., Fletcher, H. P., and Shangraw, R. F., development and evaluation of an inhalation aerosol of nitroglycerin, 907
Conway, W. D., and Melethil, S., excretion of probenecid and its metabolites in bile and urine of rats, 1551
Cook, P., *see* Hersey, J. A., 408
Cook, R. M., *see* Smith, R. V., 161
Coons, T. L., *see* Beres, J. A., 469
Cooper, J. K., *see* Midha, K. K., 1725
Cordell, G. A., *see* Aynilian, G. H., 536
Corman, L., *see* Ho, R. I., 1474
Cornatzer, W. E., *see* Gupta, A. K., 1227
——*see* Parmar, S. S., 872
Coutts, R. T., *see* Walter, L. J., 1754
Coviello, D. A., *see* Chu, S., 1786
——*see* Sternson, L. A., 967
Cowles, A. C., *see* Litterst, C. L., 1718
Cox, S., *see* Sterling, J., 1744
Cramer, M. B., and Cates, L. A., effects of dimethyl sulfoxide and trimethylphosphine oxide on percutaneous absorption of corticosteroids in the rat, 793
Crane, F. A., *see* Aynilian, G. H., 536
Creaven, P. J., *see* Allen, L. M., 474
Croswell, R. W., and Becker, C. H., suspension polymerization for preparation of timed-release dosage forms, 440

D

Dal Piaz, V., *see* Pinzauti, S., 1446
D'Amico, M. A., *see* Kupchi, E. J., 261
Dann, R. E., *see* Meyer, M. C., 1693
Das, N. P., *see* Preste, P. G., 467
Data, J. B., Taylor, M. L., and Forcione, M., preparation and pharmacological screening of

indanethylamines related to tryptamine, 848
Dave, C., and Caballes, L., colorimetric determination of guanazole in plasma and blood, 347
Davenport, W., *see* Reed, M., 1455
David, S. T., and Augsburger, L. L., flexure test for determination of tablet tensile strength, 933
Davies, D. J. G., *see* Winterborn, I. K., 64
Davis, G. M., Taphorn, J. E., III, and Caruso, J. A., titrations of barbiturates and sulfa drugs in 3-methyl-2-oxazolidone, 1136
Davis, I., *see* Garceau, Y., 1793
Davis, M. A., *see* Soloway, A. H., 647
Dawidar, A. M., and Fayez, M. B. E., mass spectra of steroid sapogenins, 140
De Fabrizio, F., analysis of acetaminophen, phenylephrine hydrochloride, diphenhydramine hydrochloride, and ascorbic acid in a capsule preparation, 91
Del Corona, L., *see* Baker, K. M., 293
De Leenheer, A. P., identification and quantitative determination of phenothiazine drugs in urine samples of psychiatric patients, 389
de Miranda, P., *see* Brent, D. A., 1370
Desai, P. D., *see* Kohl, H., 838
de Silva, J. A. F., Bekersky, I., and Brooks, M. A., electron-capture GLC determination of blood levels of 7-chloro-1,3-dihydro-5-(2′-chlorophenyl)-2*H*-1,4-benzodiazepin-2-one in humans and its urinary excretion as lorazepam determined by differential pulse polarography, 1943
——Bekersky, I., Brooks, M. A., Weinfeld, R. E., Glover, W., and Puglisi, C. V., determination of bromazepam in blood by electron-capture GLC and of its major urinary metabolites by differential pulse polarography, 1440
——Bekersky, I., and Puglisi, C. V., spectrofluorodensitometric determination of flurazepam and its major metabolites in blood, 1837
——Puglisi, C. V., and Munno, N., determination of clonazepam and flunitrazepam in blood and urine by electron-capture GLC, 520
——*see* Kaplan, S. A., 527
de Souza, N. J., *see* Kohl, H., 838
Devani, M. B., Shishoo, C. J., Mody, H. J., and Raja, P. K., detection of thioamides: determination of ethionamide with 2,3-dichloro-1,4-naphthoquinone, 1471
Devlin, J. P., isolation and partial purification of hemolytic toxin from sea anemone, *Stoichactis helianthus,* 1478
Deysach, L. G., *see* Hofmann, L. M., 1248
Di Colo, G., *see* Bottari, F., 1779
Dietz, E. M., *see* Digenis, G. A., 745
Digenis, G. A., Amos, H. E., Mitchell, G. E., Swintosky, J. V., Yang, K., Schelling, G. T., and Parish, R. C., methionine substitutes in ruminant nutrition II: stability of nonnitrogenous compounds related to methionine during *in vitro* incubation with rumen microorganisms, 751
——Amos, H. E., Yang, K., Mitchell, G. E., Little, C. O., Swintosky, J. V., Parish, R. C., Schelling, G. T., Dietz, E. M., and Tucker, R. E., methionine substitutes in ruminant nutrition I: stability of nitrogenous compounds related to methionine during *in vitro* incubation with rumen microorganisms, 745
Dimmock, J. R., and Taylor, W. G., synthesis and physical properties of substituted 4-dimethylaminomethyl-1-phenyl-1-nonen-3-ones possessing antitumor properties, 69
Dirksen, J. W., Born, G. S., Kessler, W. V., and Shaw, S. W., improvements in the synthesis of pentylenetetrazol-10-^{14}C, 637
Dohadwalla, A. N., *see* Kohl, H., 838
Domjan, M., *see* Cantwell, F. F., 599
Donelli, M. G., *see* Pantarotto, C., 1554
Doorenbos, N. J., and Kim, J. C., synthesis and evaluation of antimicrobial properties of amidinoazaandrostanes and guanidinoazaandrostanes, 620
——*see* Elsohly, M. A., 1623
——*see* Flor, S. C., 618
——*see* Solomons, W. E., 19
Dorato, M. A., Ward, C. O., and Sciarra, J. J., evaluation of telemetry in determining toxicity of aerosol preparations, 1892
Douglas, B., *see* Zarembo, J. E., 1407
Douglas, J. D., *see* Roll, D. B., 1628
Down, W. H., Chasseaud, L. F., and Grundy, R. K., biotransformation of isosorbide dinitrate in humans, 1147
Doyle, T. D., and Fazzari, F. R., determination of drugs in dosage forms by difference spectrophotometry, 1921
Dravnieks, A., Keith, L., Krotoszynski, B. K., and Shah, J., vaginal odors: GLC assay method for evaluating odor changes, 36
Dreyfuss, J., *see* Wong, K. K., 854
Dubé, P. H., *see* Guttman, D. E., 1625
Duke, J. A., *see* Aynilian, G. H., 1938
Duncan, J. H., *see* Preste, P. G., 467
Dunn, D. F., *see* Shibata, S., 1332
Dunning, L. K., *see* Bruce, R. B., 446
Dutt, J. E., *see* Hofmann, L. M., 1248
Duvall, R. N., *see* Shankle, L. L., 265
Dwivedi, C., Harbison, R. D., Ali, B., and Parmar, S. S., synthesis of substituted anilino-[3-methoxy - 4 - (4 - arylthiosemicarbazidocarbonylmethyleneoxyl)]benzylidines: correlation between anticonvulsant activity and monoamine oxidase inhibitory and antihemolytic properties, 1124
——*see* Gupta, A. K., 1227
——*see* Parmar, S. S., 1152

E

Eblan, A. R., *see* Moustafa, M. A., 1103
Ecanow, B., *see* Shah, D., 1164
——*see* Stanaszek, W. F., 1941
Ehrnebo, M., pharmacokinetics and distribution properties of pentobarbital in humans following oral and intravenous administration, 1114
Eisen, H., *see* Shah, N., 339
El-Fatatry, H. M., *see* Taha, A. M., 1853
Elkhouly, A. E., and Yousef, R. T., antibacterial efficiency of mercurials, 681
El-Rabbat, N. A., *see* Omar, N. M., 937
Elsohly, H. N., Slatkin, D. J., Schiff, P. L., Jr., and Knapp, J. E., metabolites of *Aspergillus cervinus* Massee (Moniliaceae), 1632
Elsohly, M. A., Doorenbos, N. J., Quimby, M. W., Knapp, J. E., Slatkin, D. J., and Schiff, P. L., Jr., euparone, a new benzofuran from *Ruscus aculeatus* L., 1623
Englert, L. F., *see* Ho, B. T., 1261
Eppich, D., *see* Nelson, E., 755
Eriksen, S. P., *see* Chrai, S. S., 333

F

Facino, R. M., *see* Santagostino, G., 1690
Falk, A. J., determination of sodium *o*-iodohippurate in pharmaceutical dosage forms by high-speed liquid chromatography, 274
Farid, N. A., Born, G. S., Kessler, W. V., and Anderson, V. L., effect of cadmium on palmitic acid metabolism by rat liver homogenate, 1492
Farmer, J., *see* Haley, T. J., 1946
Farnsworth, N. R., Bederka, J. P., Jr., and Moses, M., modern approaches for selecting biologically active plants I: CNS depressants, 457
——*see* Aynilian, G. H., 536, 1938
——*see* Segelman, A. B., 1419
——*see* Thompson, E. B., 1936
——*see* Tin-Wa, M., 1476
Fayez, M. B. E., *see* Dawidar, A. M., 140
Fazzari, F. R., *see* Doyle, T. D., 1921
Feld, S. L., *see* Jaffe, J. M., 1256
Feldman, H., *see* Lalka, D., 1812
Feldman, S., Richardson, J., Freeman, C., Pollock, S., Berger, J., Kaplan, F., and Rhoa, G., *in vitro* assessment of *in vivo* absorption of drug complexes, 454
Feimeister, A., *see* Lodhi, S. A., 738
——*see* Malick, A. W., 398
Ferguson, G. G., *see* Champney, R., 942
Ferguson, N. M., *see* Champney, R., 942
——*see* Chang, T.-M. (C.), 1316
Fieber, R. A., *see* Santilli, A. A., 449
Fincher, J. H., *see* Lin, G.-M., 666
Finkelstein, E. R., *see* Bernard, B. K., 1637
Fischer, L. J., *see* Miller, R. P., 969
Flann, B., comparison of criteria for content uniformity, 183
Fletcher, H. P., *see* Contractor, A. M., 907
Flor, S. C., Doorenbos, N. J., Svoboda, G. H., Knapp, J. E., and Schiff, P. L., Jr., chemical constituents of *Legnephora moorei* Miers (Menispermaceae), 618
Florence, A. T., *see* Attwood, D., 988
Flynn, G. L., Yalkowsky, S. H., and Roseman, T. J., mass transport phenomena and models: theoretical concepts, 479
——Yalkowsky, S. H., and Weiner, N. D., general influence of physicochemical properties of drug–receptor combination, 300
——*see* Yalkowsky, S. H., 691, 1276
Fong, H. H. S., *see* Tin-Wa, M., 1476
Forcione, M., *see* Data, J. B., 848
Forgione, A., *see* Tosolini, G. P., 1072
Forist, A. A., *see* Brown, L. W., 459
Foss, P., *see* Rosazza, J., 544
Foulke, J. D., Kessler, W. V., Born, G. S., Shaw, S. M., and Vetter, R. J., effects of cadmium on sodium and potassium excretion and on action of hydrochlorothiazide in rats, 563
Foye, W. O., *see* Ho, R. I., 1474
Franco, C., *see* Vidi, A., 1130
Frank, C. W., *see* Asleson, G. L., 1144
Frank, S. G., thermal stability of biological lipids I: differential scanning calorimetry of mixtures of cholesteryl myristate and cholesteryl palmitate, 795
Frauch, P., slide test as a micromethod of a modified *Limulus* endotoxin test, 808
Freeman, C., *see* Feldman, S., 454
Frigerio, A., Sossi, N., Belvedere, G., Pantarotto, C., and Garattini, S., identification of desmethylcyproheptadine-10,11-epoxide and other cyproheptadine metabolites isolated from rat urine, 1536
——*see* Baker, K. M., 293
——*see* Pantarotto, C., 1554
Frith, C., *see* Haley, T. J., 1946
Funderburk, M. J., *see* Hufford, C. D., 1338
Fung, H., Yap, S. K., and Rhodes, C. T., development of a stable sublingual nitroglycerin tablet I: interaction of nitroglycerin with selected macromolecules, 1810

G

Gad, Z., *see* Girgis, E. H., 1764
Gaertner, H. J., *see* Breyer, U., 1842
Gaginella, T. S., Perrin, J. H., Vallner, J. J., and Bass, P., effect of bile salts on partitioning and oral toxicity of the bisquaternary ammonium drug decamethonium bromide, 790
——Welling, P. G., and Bass, P., nicotine base permeation through silicone elastomers: comparison of dimethylpolysiloxane and trifluoropropylmethylpolysiloxane systems, 1849
Gallo, R. L., *see* Cates, L. A., 1480
Gazzza, C. H., *see* Sicardi, S. M., 1336
Garattini, S., *see* Frigerio, A., 1536
Garceau, Y., Davis, I., and Hasegawa, J., quantitative fluorometric TLC procedure for determination of hydroflumethiazide in biological fluids, 1793
Garner, P. M., *see* Ho, B. T., 1261
Garrett, E. R., and Hunt, C. A., physicochemical properties, solubility, and protein binding of Δ^9-tetrahydrocannabinol, 1056
——and Richard, A. J., kinetics and mechanisms of drug action on microorganisms XX: integrated receptor site model rationalizing observed microbial rate dependencies on drug concentration and microbial kinetics affected by sodium fusidate, 884
——and Tsau, J., stability of tetrahydrocannabinols I, 1563
——Hermann, T. W., and Lee, H.-K., kinetics and mechanisms of solvolysis of 5-iodocytosine, 899
——*see* Hinderling, P. H., 1684
——*see* Richard, A. J., 894

Geissman, T. A., *see* Lee, K.-H., 1162
Gelbart, A., *see* Thomas, R., 1649
Gentner, W. A., *see* Aynilian, G. H., 1938
George, J. M., *see* Kier, L. B., 1435
Gey, G. O., *see* Levy, R. H., 1958
Ghanim, A., *see* Mahanta, P. K., 1160
Gharavi, V., *see* Lalezari, I., 1485
Ghosal, S., Sharma, P. V., and Chaudhuri, R. K., chemical constituents of Gentianaceae X: xanthone-*O*-glucosides of *Swertia purpurascens* Wall., 1286
——Singh, A. K., Sharma, P. V., and Chaudhuri, R. K., chemical constituents of Gentianaceae IX: natural occurrence of erythrocentaurin in *Enicostemma hyssopifolium* and *Swertia lawii*, 944
——*see* Bhattacharya, S. K., 1341
Gibaldi, M., *see* Shen, D., 1693
Gibbs, I. S., and Tuckerman, M. M., formulations of a stable pilocarpine hydrochloride solution, 276
Gillan, J. M. N., *see* Attwood, D., 988
Gilleran, T. G., *see* Zak, S. B., 225
Gilmore, W. F., and McBride, H. A., new compounds: monoesters of α-aminobenzylphosphonic acid, 965
——and McBride, H. A., synthesis of peptides containing aminophosphonic acids, 1087
——*see* Lin, C.-M., 666
Girgis, E. H., Gad, Z., and Maram, M., ion-pair extraction and precipitation methods for ethambutol determination, 1764
Gisvold, O., and Thaker, E., lignans from *Larrea divaricata*, 1905
Glenn, E. M., *see* Kaiser, D. G., 784
Glover, W., *see* de Silva, J. A. F., 1440
Gold, S., *see* West, N. R., 417
Goldenberg, M. M., *see* Alaimo, R. J., 1939
Gomaa, C. S., *see* Taha, A. M., 1853
Goodhart, F. W., McCoy, R. H., and Ninger, F. C., release of a water-soluble drug from a wax matrix timed-release tablet, 1748
Gopinath, K. W., *see* Mahanta, P. K., 1160
Gora, P., *see* Thompson, E. B., 1936
Gorby, R., *see* Stone, J. C., 1296
Grace, M. E., *see* Sigel, C. W., 1202
Grady, L. T., *see* King, R. H., 1591
Graham, J. H., Banes, D., Biesemeyer, M. F., and Nadkarni, A., analysis of sodium levothyroxine or sodium liothyronine in tablets, 763
Gram, T. E., *see* Litterst, C. L., 1718
Grant, D. E., *see* Chien, Y. W., 365
Gray, A. P., and Robinson, D. S., naltrexone zinc tannate: a prolonged-action narcotic antagonist complex, 159
Gray, G. M. T., *see* Barry, B. W., 548
Green, R. H., and Hem, S. L., effect of washing on physicochemical properties of aluminum hydroxide gel, 635
Grundy, R. K., *see* Down, W. H., 1147
Guarino, A. M., *see* Litterst, C. L., 1718
Guillory, J. K., *see* Lin, H. O., 145
Gupta, A. K., Dwivedi, C., Gupta, T. K., Parmar, S. S., and Cornatzer, W. E., synthesis of substituted piperidino carbamides: correlation between CNS effects and selective inhibition of NAD-dependent oxidations, 1227
Gupta, T. K., *see* Gupta, A. K., 1227
Gupta, V. D., and Cates, L. A., quantitative determination of resorcinol and phenol in resorcinol–phenol–boric acid solution, 93
——*see* Allen, A. E., 107
Guttman, D. E., Kostenbauder, H. B., Wilkinson, G. R., and Dubé, P. H., GLC determination of papaverine in biological fluids, 1625

H

Hadley, K. W., *see* Turner, C. E., 1872
Hadley, W. M., Bousquet, W. F., and Miya, T. S., modified fluorescence assay for oxidized and reduced glutathione in tissue, 57
Hajjar, J. J., *see* Bikhazi, A. B., 1703
Hajratwala, B. R., influence of sunscreening agents on color stability of tablets coated with certified dyes I: FD&C Red No. 3, 129
——influence of sunscreening agents on color stability of tablets coated with certified dyes II: FD&C Blue No. 1, 1927
——*see* Blaug, S. M., 1240
Haleblian, J. K., *see* Herd, A. K., 995
Haley, T. J., and Hunziker, J., instrument for producing standardized skin abrasions, 106
——Schieferstein, G., Jaques, W. E., Farmer, J., Frith, C., and Sprawls, R. W., dose–response predictability of urinary bladder hyperplasia by *N*-2-fluorenylacetamide feeding in mice: its modification by sex, 1946
Hall, I. H., Ishaq, K. S., and Piantadosi, C., role of deoxyribonuclease in cancer chemotherapy, 625
Halliday, R. P., *see* Wright, G. C., 149
Hamilton, C. M., and Moros, S. A., determination of sulfur dioxide in starch and other pharmaceutical materials, 1458
Hamilton, H. E., Wallace, J. E., and Blum, K., improved methods for quantitative determination of methadone, 741
——*see* Wallace, J. E., 1795
Hammarlund, E. R., *see* Lee, M., 721
Hammer, R. H., Templeton, J. L., and Panzik, H. L., definitive GLC method of identifying cocaine, 1963
——*see* Perchalski, R. J., 1489
Haney, W. G., *see* Sterling, J., 1448, 1744
Haney, W. G., Jr., *see* Chang, B.-L., 758
——*see* Wittmer, D., 588
Hanna, S., and Tang, A., GLC determination of chlorpheniramine in human plasma, 1954
Harakal, J. J., *see* Segelman, A. B., 962
Harbison, R. D., *see* Dwivedi, C., 1124
——*see* Parmar, S. S., 1152
Harris, K. L., *see* Harris, P. A., 138, 781
Harris, P. A., and Harris, K. L., kinetics of heparin removal from circulation of the minipig, 138
——and Harris, K. L., quantitative GLC analysis of plasma cholesterol, 781
Hasegawa, J., *see* Garceau, Y., 1793
Hatano, M., *see* Ikeda, K., 1168
Hayton, W. L., effect of γ-radiation on intestinal absorption of sulfanilamide, 645
Hazlett, J. R., Kramer, P. A., and Kildsig, D. O., mechanism of histamine binding I: effect of calcium on binding of histamine to a plasma peptide, 701
Held, H. R., and Landi, S., interaction of 8-hydroxyquinoline sulfate with components of tuberculin purified protein derivative solutions III: binding of 8-hydroxyquinoline by tuberculin purified protein derivative, 1205
Hem, S. L., *see* Green, R. H., 635
Heman-Ackah, S. M., microbial kinetics of drug action against Gram-positive and Gram-negative organisms I: effect of lincomycin on *Staphylococcus aureus* and *Escherichia coli*, 1077
Henry, J., *see* Turner, C. E., 1872
Herbison-Evans, D., *see* Madsen, B. W., 777
Herd, A. K., and Haleblian, J. K., pharmaceutical sciences—1973: literature review of pharmaceutics, 995
Hermann, T. W., *see* Garrett, E. R., 899
Hersey, J. A., powder mixing by frictional pressure: specific example of use of ordered mixing, 1960
——Cook, P., Smyth, M., Bishop, E. A., and Clarke, E. A., homogeneity of multicomponent powder mixtures, 408
Hester, D. W., *see* Honigberg, I. L., 1762
Heveran, J. E., *see* Menyharth, A., 430
Hiestand, E. N., and Peot, C. B., tensile strength of compressed powders and an example of incompatibility as end-point on shear yield locus, 605
Higgins, R. H., hydroxymethylfuraldimines: possible intermediates on Maillard reaction, 1635
Higuchi, T., and Ikeda, M., rapidly dissolving forms of digoxin: hydroquinone complex, 809
——*see* Bourne, D. W. A., 865
——*see* Theeuwes, F., 427
Higuchi, W. I., *see* Chowhan, Z.-U.-D. T., 1428
——*see* Ho, N. F. H., 686
——*see* Surpuriya, V., 1325
Hinderling, P. H., Bres, J., and Garrett, E. R., protein binding and erythrocyte partitioning of disopyramide and its monodealkylated metabolite, 1684
Hines, N. L., *see* Chu, S., 1786
Hiskey, C. F., *see* Cantwell, F. F., 599
Hitchings, G. H., *see* Sigel, C. W., 1202
Hite, G., *see* Soares, J. R., 298
Ho, B. T., Gardner, P. M., Englert, L. F., and Walker, K. E., effects of aromatic aldehydes on *O*-methylation of dopamine and norepinephrine *in vitro*, 1261
Ho, N. F. H., and Higuchi, W. I., theoretical model studies of intestinal drug absorption IV: bile acid transport at premicellar concentrations across diffusion layer–membrane barrier, 686
Ho, R. I., Corman, L., and Foye, W. O., synthesis and biological evaluation of 2-amino-4-hydroxy-6-hydroxymethylpteridine pyrophosphate, 1474
Hoener, B.-A., Sokoloski, T. D., Mitscher, L. A., and Malspeis, L., kinetics of dehydration of epitetracycline in solution, 1901
Hofmann, L. M., Dutt, J. E., Dalysach, L. G., Loncin, H., and Tao, L., comparison of spironolactone tablet dosage forms in healthy humans, 1248
Hogg, J. L., and Schowen, R. L., synthetic procedures for deuterium-labeled acetylcholine perchlorates, 1620
Holder, S. L., *see* Sims, B., 1540
Höltje, H.-D., and Kier, L. B., sweet taste receptor studies using model interaction energy calculations, 1722
——*see* Kier, L. B., 1435
Honigberg, I. L., Stewart, J. T., and Smith, A. P., liquid chromatography in pharmaceutical analysis: determination of cough–cold mixtures, 766
——Stewart, J. T., Smith, A. P., Plunkett, R. D., and Hester, D. W., liquid chromatography in pharmaceutical analysis II: determination of a reserpine–chlorothiazide mixture, 1762
Hopper, A. T., *see* Nazareth, R. I., 199
Hsi, R. S. P., *see* Brown, L. W., 459
Hsiao, J.-H., and Chiou, W. L., fluorocarbon aerosol propellants III: effect of water vapor on sensitivity of electron–capture detector during GC analysis, 1776
——*see* Chiou, W. L., 1614
Hsu, P.-L., Ma, J. K. H., Jun, H. W., and Luzzi, L. A., structure relationship for binding of sulfonamides and penicillins to bovine serum albumin by fluorescence probe technique, 27
——Ma, J. K. H., and Luzzi, L. A., interactions of sulfonylureas with plasma proteins, 570
——*see* Ma, J. K. H., 32
——*see* Smith, C. I., 156
Huang, C. L., *see* Pong, S. F., 1527
Huang, E.-S., *see* Lee, K.-H., 1162
Huang, W.-T., *see* Blaug, S. M., 1415
Hucker, H. B., and Stauffer, S. C., GLC method for quantitative determination of amitriptyline in human plasma, 296
Huettemann, R. E., and Shroff, A. P., hydrolysis of steroid oximes: mechanism and products, 74
Hufford, C. D., and Funderburk, M. J., nonbasic aporphine alkaloids from *Liriodendron tulipifera* L., 1338
Hunt, C. A., *see* Garrett, E. R., 1056
Hunt, J., *see* Blake, M. I., 89
Hunziker, J., *see* Haley, T. J., 106
Hurtubise, R. J., determination of disodium edetate dihydrate in streptomycin by atomic absorption spectrophotometry, 1131
——determination of silicon in streptomycin by atomic absorption, 1128
Hussain, A., and Rytting, J. H., prodrug approach to enhancement of rate of dissolution of allopurinol, 798
——Yamasaki, M., and Truelove, J. E., kinetics of hydrolysis of acylals of aspirin: hydrolysis of (1′-ethoxy)ethyl 2-acetoxybenzoate, 627
——*see* Theeuwes, F., 427
Hynes, J. B., *see* Priest, D. G., 1158

I

Ikeda, K., Uekama, K., Otagiri, M., and Hatano,

M., circular dichroism study on inclusion complexes of β-cyclodextrin with anti-inflammatory fanamates, 1168
Ikeda, M., *see* Higuchi, T., 809
Iola, J. V., *see* Levy, G. N., 1197
Isaacs, V. E., and Schoenwald, R. D., binding of quinidine to a red blood cell hemolysate preparation, 1267
——and Schoenwald, R. D., estimation of pharmacological, biophasic, and biological half-lives of quinidine in rabbits, 1119
Ishaq, K. S., *see* Hall, I. H., 625
Ithakissios, D. S., Kessler, W. V., Arvesen, J. N., and Born, G. S., effect of multiple doses of cadmium on glucose metabolism in the rat, 146
——Kessler, W. V., Arvesen, J. N., and Born, G. S., effect of cadmium *in vivo* on glucose catabolism in normal and alloxan diabetic rats, 952

J

Jack, M. L., *see* Kaplan, S. A., 527
Jacobs, G. R., and Burks, T. F., intestinal motor effects of a unique analgesic agent, 787
Jaffe, J. M., Poust, R. I., Feld, S. L., and Colaizzi, J. L., influence of repetitive dosing and altered urinary pH on doxycycline excretion in humans, 1256
Jandhyala, B. S., Clarke, D. E., and Buckley, J. P., effects of prolonged administration of certain antihypertensive agents, 1497
Janicki, C. A., and Almond, H. R., Jr., reaction of haloperidol with 5-(hydroxymethyl)-2-furfuraldehyde, an impurity in anhydrous lactose, 41
Jaques, W. E., *see* Haley, T. J., 1946
Jarowski, C. I., *see* Ampolsuk, C., 117
——*see* Shah, N., 339
Johnson, B. J., synthesis, structure, and biological properties of sequential polypeptides, 313
Johnson, J. B., Kennedy, P. G., and Rubin, S. H., system for automated determination of dissolution rate, 1931
Johnson, M. C. R., particle-size requirements related to content uniformity of solid dosage forms, 1961
Jolad, S. D., Wiedhopf, R. M., and Cole, J. R., tumor-inhibitory agent from *Zaluzania robinsonii* (Compositae), 1321
Jones, C. W., *see* Priest, D. G., 1158
Jones, R. L., lidocaine: a case of intraamide hydrogen bonding, 1170
Jordan, R., *see* Borne, R. F., 615
Joshi, P. C., *see* Parmar, S. S., 872
Joshi, S. B., *see* Bal, A. S., 473
Jun, H. W., Whitworth, C. W., and Luzzi, L. A., aspirin stability in substituted and nonsubstituted polyhydric alcohols in absence and presence of added water, 133
——*see* Hsu, P.-L., 27
June, H. W., *see* Strom, J. G., 1812
Jurgens, R. W., Jr., and Becker, C. H., semisolid oleaginous ointment bases for ophthalmic use, 443

K

Kabasakalian, P., Kalliney, S., and Westcott, A., differential pulse polarographic analysis of everninomicin complex in fermentation broth, 641
Kadaba, P. K., new compounds: convenient selective esterification of aromatic carboxylic acids bearing other reactive groups using a boron trifluoride etherate–alcohol reagent, 1333
Kadin, H., interference by traces of acetic anhydride in nonaqueous titrimetry of primary aromatic amines: improved titrations for procainamide hydrochloride, 919
Kaelin, M. J., *see* Beres, J. A., 469
Kaiser, D. G., and Glenn, E. M., correlation of plasma ibuprofen levels with biological activity, 784
——and Martin, R. S., GLC determination of warfarin in human plasma, 1579
——and Shaw, S. R., GLC determination of chlorphenesin carbamate in serum, 1094
——and VanGiessen, G. J., GLC determination of ibuprofen [(±) - 2 - (*p* - isobutylphenyl)propionic acid] in plasma, 219
——Carlson, R. G., and Kirton, K. T., GLC determination of medroxyprogesterone acetate in plasma, 420
——Shaw, S. R., and VanGiessen, G. J., GLC determination of *dl*-2-(2-fluoro-4-biphenylyl)propionic acid (flurbiprofen) in plasma, 567
Kalliney, S., *see* Kabasakalian, P., 641
Kamath, B. L., and Levy, G., renal contribution to drug biotransformation, 1342
Kaminski, E. E., and Pacenti, D. M., spectrophotometric titration of edetic acid in ophthalmic solutions, 1133
Kaminski, J. J., *see* Bodor, N., 1387
Kapadia, G. J., Chowdhury, B. K., Rao, G. S., and Pradhan, S. N., synthesis and psychotropic activity of 2-hydroxy-4,5-dimethoxyphenethanolamine, a potential endogenous psychotogen, and its methylenedioxy analog, 1339
——*see* Paul, B. D., 958
Kaplan, F., *see* Feldman, S., 454
Kaplan, S. A., Alexander, K., Jack, M. L., Puglisi, C. V., de Silva, J. A. F., Lee, T. L., and Weinfeld, R. E., pharmacokinetic profiles of clonazepam in dog and humans and of flunitrazepam in dog, 527
Karim, A., *see* Chien, Y. W., 1877
Kasem, A., *see* Mahgoub, A. E., 1451
Kashiwagi, M., *see* Quinn, R. J., 257, 1798
——*see* Shibata, S., 1332
Kasina, S., Ng, K. W., and Nematollahi, J., novel synthesis of bifunctional acid-esters, 1155
Kavanagh, F. W., automated system for analytical microbiology IV: accuracy of measurements, 1463
——microbiological diffusion assay I: operations studied with Cooper equation, 1459
Kawashima, Y., and Takenaka, H., reduced acid-neutralizing velocity of spray-dried agglomerated magnesium carbonate, 1546
Keith, L., *see* Dravnieks, A., 36
Kellaway, I. W., *see* Padfield, J. M., 143
Kennedy, D. R., *see* Smith, G. G., 712
Kennedy, P. G., *see* Johnson, J. B., 1931
Keresztes-Nagy, S., *see* Mais, R. F., 1423
Kertesz, J. C., Wolf, M. B., Wolf, W., and Chen, L.-Y. A., electron spin resonance studies of free radicals in solution III: pH dependence of thiyl free radical of cysteine, 880
Kessler, W. V., *see* Dirksen, J. W., 637
——*see* Farid, N. A., 1492
——*see* Foulke, J. D., 563
——*see* Ithakissios, D. S., 146, 952
Khairy, E. M., *see* Mahgoub, A. E., 1451
Khalafallah, N., Khalil, S. A., and Moustafa, M. A., bioavailability determination of two crystal forms of sulfameter in humans from urinary excretion data, 861
Khalil, S. A., *see* Khalafallah, N., 861
——*see* Moustafa, M. A., 1103
Khalil, S. A. H., bioavailability of digoxin in presence of antacids, 1641
——*see* Nasipuri, R. N., 956, 1788
Khalil, S. K. W., *see* Salama, R. B., 1301
Kier, L. B., George, J. M., and Höltje, H.-D., structure–activity studies on γ-aminobutyric acid-like agents, 1435
——*see* Höltje, H., 1722
Kildsig, D. O., *see* Hazlett, J. R., 701
Killion, K., *see* Rao, K. V., 1328
Kim, D. H., *see* Santilli, A. A., 449
Kim, J. C., *see* Doorenbos, N. J., 620
Kim, S.-M., *see* Lee, K.-H., 1162
King, J. A., Woodside, W., and McGucken, P. V., relationship between pH and antibacterial activity of glutaraldehyde, 804
King, J. C., *see* Catania, P. N., 1483
King, R. H., Grady, L. T., and Reamer, J. T., progesterone injection assay by liquid chromatography, 1591
Kingston, D. G. I., and Reichstein, T., cytotoxic cardenolides from *Acokanthera longiflora* Stapf. and related species, 462
Kirschbaum, J., colorimetric determination of cephradine, a cephalosporin antibiotic, 923
——micellar properties of drugs: determination of molecular weight, size, and molecular interactions of drug micelles using the analytical ultracentrifuge, 981
Kirton, K. T., *see* Kaiser, D. G., 420
Klamrzynski, M., *see* Reed, M., 1455
Klink, P. R., Poust, R. I., Colaizzi, J. L., and McDonald, R. H., Jr., bioavailability and dissolution properties of two commercial digoxin tablets, 1231
Knapp, J. E., *see* Elsohly, H. N., 1632
——*see* Elsohly, M. A., 1623
——*see* Flor, S. C., 618
Knobloch, L. C., *see* Segelman, A. B., 962
Ko, H., and Royer, M. E., *in vitro* binding of drugs to colestipol hydrochloride, 1914
Kobayashi, H., Nishimura, T., Okumura, K., Muranishi, S., and Sezaki, H., effect of polysorbates on absorption rates of water-soluble, micelle-free drugs administered intramuscularly in the rat, 580
Kohl, H., Desai, P. D., Dohadwalla, A. N., and de Souza, N. J., synthesis and CNS activity of 3-substituted 7-chloro-5-phenyl-1,3,4-benzotriazepin-2-ones, 838
Kohno, K., *see* Utsumi, I., 676
Kojima, M., syntheses and antimicrobial properties of isothiocyanate derivatives, 1801
Kokpol, U., *see* Miles, D. H., 613
Konieczny, J. M., and McGonigle, E., automated fluorescence analysis of perphenazine in dissolution rate testing of tablet formulations, 1306
Kornet, M. J., Thorstenson, J. H., and Lubawy, W. C., anticonvulsant activity of 1-alkyl-4-substituted 3,5-pyrazolidinediones, 1090
Korunčev, D., and Babić, I., 2-ethylpyridine derivatives with antitubercular properties, 475
Kostenbauder, H. B., *see* Guttman, D. E., 1625
——*see* Sanvordeker, D. R., 404
Koysooko, R., and Levy, G., effect of ethanol on intestinal absorption of theophylline, 829
Kramer, P. A., albumin microspheres as vehicles for achieving specificity in drug delivery, 1646
——*see* Hazlett, J. R., 701
Krotoszynski, B. K., *see* Dravnieks, A., 36
Ku, S.-H., and Cadwallader, D. E., behavior of erythrocytes in various solvent systems VII: water–monohydric alcohols, 60
Kubena, R. K., *see* Sofia, R. D., 939
Kuchil, M., *see* Quinn, R. J., 1798
——*see* Shibata, S., 1332
Kuchinskas, E. J., *see* Levy, G. N., 1197
Kuhlman, C. F., *see* Nelson, G. L., 1959
Kupchik, E. J., Pisano, M. A., Parikh, D. K., and D'Amico, M. A., synthesis and antimicrobial activity of *N*-substituted *N*-cyano-*O*-(triorganostannyl)isoureas, 261
Kuplecki, F. P., Ogzewalla, C. D., and Scheil, F. M., isolation and characterization of hypoglycemic agent from *Xanthium strumarium*, 1166

L

Lalezari, I., Gharavi, V., and Mazhari, N., synthesis and antibacterial activity of 5-nitro-2-furfurylidene *p*-sulfonyl- and *p*-sulfamoylbenzoylhydrazides VII, 1485
——Nasseri, P., and Asgharian, R., *Papaver bracteatum* Lindl: population Arya II, 1331
——Shafiee, A., and Yazdany, S., selenium heterocycles X: synthesis and antibacterial activity of pyridyl-1,2,3-thiadiazoles and pyridyl-1,2,3-selenadiazoles, 628
Lalka, D., and Feldman, H., absolute drug bioavailability: approximation without comparison to parenteral dose for compounds exhibiting perturbable renal clearance, 1812
Lambert, H. J., *see* Chien, Y. W., 365, 515, 1877
Lamdan, S., *see* Sicardi, S. M., 1336
Landgraf, W. C., *see* Sarbeck, J. R., 929
Landl, S., *see* Held, H. R., 1205
La Porta, E., *see* Pinzauti, S., 1446
Laskar, P. A., *see* Ayres, J. W., 31, 1402
Lawrence, W. H., *see* Mir, G. N., 376

Lazo-Wasem, E. A., *see* Nemoitin, B. O., 1323
Lee, H.-K., *see* Garrett, E. R., 899
Lee, K.-H., Kim, S.-H., Piantadosi, C., Huang, E.-S., and Geissman, T. A., antitumor agents VIII: synthesis and cytotoxic activity of *O,O'*-bis(acrylyl)-α,ω-alkanediols, 1162
Lee, M., and Hammarlund, E. R., corneal absorption of ophthalmic drugs, 721
Lee, P. F. S., *see* Wan, L. S. C., 136
Lee, T. H., *see* Bodor, N., 1387
Lee, T. L., *see* Kaplan, S. A., 527
Lee, W., *see* Cohen, J. L., 1068
Legit, D., *see* Bailey, K., 1575
Lehn, P. J., *see* Bogdansky, S., 802
Lemberger, M., *see* Rosazza, J., 544
Lemke, T. L., *see* Cates, L. A., 1736
Leung, S., *see* Amidon, G. L., 1858
Levinson, R. S., *see* Stanaszek, W. F., 1941
Levy, G., and Yacobi, A., effect of plasma protein binding on elimination of warfarin, 805
——*see* Kamath, B. L., 1342
——*see* Koysooko, R., 829
——*see* Yacobi, A., 868
Levy, G. N., Ioia, J. V., and Kuchinskas, E. J., interconversion of ampicillin and hetacillin *in vitro*, 1197
Levy, R. H., Gey, G. O., and Bruce, R. A., time-dependent effect of oral procainamide in patients with exertional arrhythmias, 1958
——*see* Martis, L., 834
Lewis, J. W., Meyers, P. L., Ormerod, J. A., and Smith, C. F. C., chemistry and biological activity of *N*-substituted hydroxylamines, 1951
Lien, E. J., *see* Cohen, J. L., 1068
Lim, J. K., and Chen, C. C., effect of selected surfactants, above and below the CMC, on aspirin solubility, 559
Lin, G.-M., Sadik, F., Gilmore, W. F., and Fincher, J. H., influence of hydrophilic–lipophilic balance values of surfactants on ephedrine absorption and release from emulsified systems after oral administration to dogs, 666
Lin, H. O., Baenziger, N. C., and Guillory, J. K., physical properties of four polymorphic forms of sulfanilamide I: densities, refractive indexes, and X-ray diffraction measurements, 145
Lindsay, R. H., Aboul-Enein, H. Y., Morel, D., and Bowen, S., synthesis and antiperoxidase activity of propylthiouracil derivatives and metabolites, 1383
Lindstrom, R. E., *see* Amann, A. H., 931
Litterst, C. L., Mimnaugh, E. G., Cowles, A. C., Gram, T. E., and Guarino, A. M., distribution of ^{14}C-lomustine (^{14}C-CCNU)-derived radioactivity following intravenous administration of three potential clinical formulations to rabbits, 1718
Little, C. O., *see* Digenis, G. A., 745
Lo, H. C., *see* Stewart, J. T., 954
Locock, R. A., Moskalyk, R. E., Chatten, L. G., and Lundy, L. M., mass spectral analysis of medicinal pyrazolidinediones, 1896
——*see* Chatten, L. G., 1294
Lodhi, S. A., Weiner, N. D., and Felmeister, A., influence of cephalin and egg lecithin on pig heart malate dehydrogenase activity, 738
Loncin, H., *see* Hofmann, L. M., 1248
Lovering, E. G., and Black, D. B., diffusion layer effects on permeation of phenylbutazone through polydimethylsiloxane, 1399
——and Black, D. B., drug permeation through membranes III: effect of pH and various substances on permeation of phenylbutazone through everted rat intestine and polydimethylsiloxane, 671
——Black, D. B., and Rowe, M. L., drug permeation through membranes IV: effect of excipients and various additives on permeation of chlordiazepoxide through polydimethylsiloxane membranes, 1224
Lubawy, W. C., *see* Kornet, M. J., 1090
Lukas, G., *see* Zak, S. B., 225
Lundy, L. M., *see* Locock, R. A., 1896
Luongo, M., Sciarra, J. J., and Ward, C. O., *in vivo* method for determining effectiveness of spray-on bandages containing anti-infectives, 1376
Luzzi, L. A., *see* Hsu, P.-L., 27, 570
——*see* Jun, H. W., 133
——*see* Ma, J. K. H., 32
——*see* Madan, P. L., 280
——*see* Needham, T. E., Jr., 438, 925
——*see* Whitlow, R. J., 1610

M

Ma, J. K. H., Hsu, P.-L., and Luzzi, L. A., new fluorescence probes for drug–protein binding studies, 32
——*see* Hsu, P.-L., 27, 570
Madan, P. L., Luzzi, L. A., and Price, J. C., microencapsulation of a waxy solid: wall thickness and surface appearance studies, 280
Madsen, B. W., Anderson, R. A., Herbison-Evans, D., and Sneddon, W., integral approach to non-isothermal estimation of activation energies, 777
——*see* Robertson, J. S., 234
Mahanta, P. K., Ghanim, A., and Gopinath, K. W., chemical constituents of *Piper sylvaticum* (Roxb) and *Piper boehmerifolium* (Wall), 1160
Mahgoub, A. E., Khairy, E. M., and Kasem, A., complex formation of uranyl acetate with tetracycline and its utilization for their microdetermination, 1451
Mahn, F. P., *see* Menyharth, A., 430
Mais, R. F., Keresztes-Nagy, S., Zaroslinski, J. F., and Oester, Y. T., interpretation of protein–drug interaction through fraction bound and relative contribution of secondary sites, 1423
Makoid, M. C., *see* Chrai, S. S., 333
Malakian, A. H., *see* Tayim, H. A., 1469
Malick, A. W., Weiner, N. D., and Felmeister, A., sodium–calcium-ion exchange in phosphatidyl serine monolayer, 398
Malinowski, H. J., and Smith, W. E., effects of spheronization process variables on selected tablet properties, 285
Malspeis, L., *see* Hoener, B.-A., 1901
Mandelli, V., *see* Tosolini, G. P., 1072
Mann, D. E., Jr., *see* Burke, D. H., 451
Maram, M., *see* Girgis, E. H., 1764
March, G. A., *see* Armstrong, N. A., 126
Marchi, E., Mascellani, G., and Boccali, D., spectrophotometric determination of pivampicillin hydrochloride, 1299
Marcucci, F., *see* Salmona, M., 222
Margosis, M., GLC analysis of chloramphenicol: a collaborative study, 435
Martin, R. S., *see* Kaiser, D. G., 1579
Martini, A., *see* Pantarotto, C., 1554
Martis, L., and Levy, R. H., GLC determination of meprobamate in water, plasma, and urine, 834
Mascellani, G., *see* Marchi, E., 1299
Mason, W. D., *see* Needham, T. E., Jr., 438
——*see* Stewart, J. T., 954
Massaroli, G. G., *see* Baker, K. M., 293
Mather, L. E., and Tucker, G. T., meperidine and other basic drugs: general method for their determination in plasma, 306
Mauger, J. W., and Paruta, A. N., entropy of transfer of molecular benzoic acid from a pure liquid to an aqueous solution, 576
Maulding, H. V., Michaelis, A. F., and Nazareno, J. P., labilization of C—N linkages by dibenzocyclohepten-5-yl ring system, 1908
Mauro, J. V., *see* Ampolsuk, C., 117
Mayersohn, M., *see* Cobby, J., 725, 732
Maynard, W. R., Jr., *see* Bruce, R. B., 446
Mazhari, N., *see* Lalezari, I., 1485
McBride, H. A., *see* Gilmore, W. F., 965, 1087
McBride, R. J., *see* Richards, R. M. E., 54
McCaully, R. J., *see* Nudelman, A., 1880
McCoy, R. H., *see* Goodhart, F. W., 1748
McDonald, R. H., Jr., *see* Klink, P. R., 1231
McGilveray, I. J., *see* Midha, K. K., 1234, 1725, 1751
McGonigle, E., *see* Konieczny, J. M., 1306
McGucken, P. V., *see* King, J. A., 804
Meakin, B. J., *see* Winterborn, I. K., 64
Medwick, T., *see* Turczan, J. W., 425
Mehta, A. C., and Schulman, S. G., comparison of fluorometric procedures for assay of amphetamine, 1150
Melethil, S., *see* Conway, W. D., 1551
Ment, W. M., and Naviasky, H. S., effect of maleic acid in compendial UV absorption assays for antihistamine maleate salts, 1604
Menyharth, A., Mahn, F. P., and Heveran, J. E., rapid quantitative determination of three active ingredients in liquid antitussive preparations by high-speed liquid chromatography, 430
Meshali, M. M., and Nightingale, C. H., improved method for microdetermination of plasma vitamin E in laboratory rats, 1084
Metheany, J., *see* Brown, M. L., 1214
Meyer, M. C., Slywka, G. W. A., Dann, R. E., and Whyatt, P. L., bioavailability of 14 nitrofurantoin products, 1693
Michaelis, A. F., *see* Maulding, H. V., 1908
——*see* Turi, P., 1309
Midha, K. K., and Charette, C., GLC determination of quinidine from plasma and whole blood, 1244
——McGilveray, I. J., and Charette, C., GLC determination of γ-hydroxyphenylbutazone in plasma, 1751
——McGilveray, I. J., and Charette, C., GLC determination of plasma concentration of phenylbutazone and its metabolite oxyphenbutazone, 1234
——McGilveray, I. J., and Cooper, J. K., GLC determination of plasma levels of warfarin, 1725
Mikolajczak, K. L., Smith, C. R., Jr., and Powell, R. G., partial synthesis of harringtonine analogs, 1280
Miles, D. H., Kokpol, U., Zalkow, L. H., Steindel, S. J., and Nabors, J. B., tumor inhibitors I: preliminary investigation of antitumor activity of *Sarracenia flava*, 613
Miller, R. P., and Fischer, L. J., urinary excretion of acetaminophen by the rat, 969
Mimnaugh, E. G., *see* Litterst, C. L., 1718
Mir, G. N., Lawrence, W. H., and Autian, J., toxicological and pharmacological actions of methacrylate monomers III: effects on respiratory and cardiovascular functions of anesthetized dogs, 376
Misra, R. S., Barthwal, J. P., Parmar, S. S., and Brumleve, S. J., substituted benzoxazole/benzthiazole-2-thiones: interrelationship between anticonvulsant activity and inhibition of nicotinamide adenine dinucleotide-dependent oxidations and monoamine oxidase, 401
Mitchell, G. E., *see* Digenis, G. A., 745, 751
Mitscher, L. A., see Hoener, B.-A., 1901
Miya, T. S., *see* Hadley, W. M., 57
Mody, H. J., *see* Devani, M. B., 1471
Mole, M. L., Jr., and Turner, C. E., phytochemical screening of *Cannabis sativa* L. I.: constituents of an Indian variant, 154
——Buelke, J., and Turner, C. E., preliminary observations on cardiac activities of *Cannabis sativa* L. root extracts, 1169
——*see* Turner, C. E., 1872
Moore, R. E., *see* Quinn, R. J., 257, 1798
Moran, C., *see* Chafetz, L., 1771
Morel, D., *see* Lindsay, R. H., 1383
Morgan, H. K., Shaw, S. M., Christian, J. E., and Carlton, W. W., inhalation of 2,3,5-triiodobenzoic acid by normal and sulfur dioxide-exposed rats, 1759
Moro, E., *see* Tosolini, G. P., 1072
Moros, S. A., *see* Hamilton, C. M., 1458
Morozowich, W., separation of prostaglandin A_2 and prostaglandin B_2 by ion-exchange liquid chromatography, 800
Moses, M., *see* Farnsworth, N. R., 457
Moskalyk, R. E., *see* Chatten, L. G., 1294
——*see* Locock, R. A., 1896
Motawi, M. M., *see* Moustafa, M. A., 1103
Moustafa, M. A., Khalil, S. A., Ebian, A. R., and Motawi, M. M., succinylsulfathiazole crystal forms I: preparation, characterization, and interconversion of different crystal forms, 1103
——*see* Khalafallah, N., 861
Mufson, D., Triyanond, K., Zarembo, J. E., and Ravin, L. J., cholesterol solubility of model bile systems: implications in cholelithiasis, 327
Mukerjee, P., micellar properties of drugs: micel-

lar and nonmicellar patterns of self-association of hydrophobic solutes of different molecular structures—monomer fraction, availability, and misuses of micellar hypothesis, 972
Munno, N., *see* de Silva, J. A. F., 520
Munson, J. W., 2-nitrophenylhydrazine: a selective reagent for colorimetric determination of carboxylic acid anhydrides and chlorides, 252
Muranishi, S., *see* Kobayashi, H., 580
Murthy, K. S., *see* Samyn, J. C., 370
Mussini, E., *see* Salmona, M., 222
Myers, P. L., *see* Lewis, J. W., 1951

N

Nabih, I., and Zayed, A., new carcinostatic agent with possible selective activity on tumor cells, 1806
——and Zayed, A., synthesis of substituted benzthiaxanthones for possible schistosomicidal activity, 946
——*see* Nasr, M., 1314
Nabors, J. B., *see* Miles, D. H., 613
Nadkarni, A., *see* Graham, J. H., 763
Naghaway, J., *see* Soine, T. O., 1643
Nagwekar, J. B., *see* Schumacher, G. E., 240
Naidoo, B. K., Witty, T. R., Remers, W. A., and Besch, H. R., Jr., cardiotonic steroids I: importance of 14β-hydroxy group in digitoxigenin, 1391
Nairn, J. G., *see* Smith, C. G., 712
Nannipieri, E., *see* Bottari, F., 1779
Nasipuri, R. N., and Khalil, S. A. H., effect of pH and citrate ions on adsorption of benzoic acid by sulfamethazine, 956
——and Khalil, S. A. H., suppression of benzoic acid adsorption on sulfamethazine by polyvinylpyrrolidone: effect of contact time, 1788
Nasr, M., Abbasi, M. M., and Nabih, I., synthesis of benzoxazino- and naphthoxazinoquinoline derivatives as possible antitumor agents, 1314
Nasseri, P., *see* Lalezari, I., 1331
Naviasky, H. S., *see* Ment, W. M., 1604
Nazareno, J. P., *see* Maulding, H. V., 1908
Nazareth, R. I., Sokoloski, T. D., Witiak, D. T., and Hopper, A. T., use of 2-(4′-hydroxybenzeneazo)benzoic acid to study the binding of L-thyroxine to serum albumins, 199
Needham, T. E., Jr., and Luzzi, L. A., comparison of dissolution profiles of tablets and capsules from the USP, Levy, and magnetic basket methods, 925
——Luzzi, L. A., and Mason, W. D., comparison of availability of ions from sodium salicylate and salicylic acid tablets, 438
——*see* Whitlow, R. J., 1610
Nelson, E., Eppich, D., and Carstensen, J. T., topochemical decomposition patterns of aspirin, 755
Nelson, G. L., Kuhlman, C. F., and Chang, T. L., combined application of high-resolution chemical ionization and electron-impact mass spectrometry to medicinal dicarbamates, 1959
Nelson, W. L., and Sherwood, B. E., amphetamine derivatives: 10(e)- and 10(a)-amino-1,2,3,4,4a,9,10,10a - (*trans* - 4a,10a) - octahydrophenanthrene, 1467
Nematollahi, J., *see* Kasina, S., 1155
Nemoitin, B. O., and Lazo-Wasem, E. A., bioavailability of organically bound iodine, 1323
Nesbitt, R. U., Jr., *see* Sandmann, B. J., 948
Newman, E. C., *see* Asleson, G. L., 1144
Ng, K. W., *see* Kasina, S., 1155
Niazi, S., and Chiou, W. L., partition coefficients of fluorocarbon aerosol propellants in water, normal saline, cyclohexane, chloroform, human plasma, and human blood, 532
Nichol, C. A., *see* Sigel, C. W., 1202
Niebergall, P. J., Sugita, E. T., and Schnaare, R. L., calculation of plasma level *versus* time profiles for variable dosing regimens, 100
Nightingale, C. H., *see* Meshali, M. M., 1084
Ninger, F. C., *see* Goodhart, F. W., 1748
Nishimura, T., *see* Kobayashi, H., 580
Norton, T. R., *see* Quinn, R. J., 257, 1798
——*see* Shibata, S., 1332
Novotny, J., Collins, C. H., and Starks, F. W., synthesis and screening of potential antimalarial agent α-(2-piperidyl)-2-(1-adamantyl)-6,8-dichloro-4-quinolinemethanol hydrochloride, 1264
Nudelman, A., McCaully, R. J., and Bell, S. C., water-soluble derivatives of 3-oxy-substituted 1,4-benzodiazepines, 1880
Nuessle, N. O., *see* Chang, B.-L., 758
Nunes, M. A., and Brochmann-Hanssen, E., hydrolysis and epimerization kinetics of pilocarpine in aqueous solution, 716
Nyhuis, A. A., *see* Ampolsuk, C., 117

O

Ochs, J. F., *see* Shah, A. C., 110
Oester, Y. T., *see* Mais, R. F., 1423
Ogilvie, R. I., *see* Tweeddale, M. G., 1065
Ogzewalla, C. D., *see* Kupiecki, F. P., 1166
Okumura, K., *see* Kobayashi, H., 580
Olsen, R., *see* Campion, D. S., 249
Omar, N. M., and El-Rabbat, N. A., polarographic study of new antimicrobial pyrazolium salts I: 1,2,5-trimethyl-3-arylpyrazolium perchlorates, 937
——*see* Taha, A. M., 395
Onyemelukwe, I., *see* Chiou, W. L., 630
Ormerod, J. A., *see* Lewis, J. W., 1951
Otagiri, M., *see* Ikeda, K., 1168
Otani, T. T., and Briley, M. R., β-hydroxyhomomethionine and β-hydroxymethoxinine: preparation and separation of diastereomers, 1253

P

Pacenti, D. M., *see* Kaminski, E. E., 1133
Padfield, J. M., and Kellaway, I. W., effect of solvents on NMR spectra of penicillins, 143
Pagay, S. N., Poust, R. I., and Colaizzi, J. L., influence of vehicle dielectric properties on acetaminophen bioavailability from polyethylene glycol suppositories, 44
Pandey, B. R., *see* Parmar, S. S., 1152
Pantarotto, C., Bossi, A., Belvedere, G., Martini, A., Donelli, M. G., and Frigerio, A., quantitative GLC determination of cyclophosphamide and isophosphamide in biological specimens, 1554
——*see* Frigerio, A., 1536
Panzik, R. L., *see* Hammer, R. H., 1963
Parikh, D. K., *see* Kupchik, E. J., 261
Parish, R. C., *see* Digenis, G. A., 745, 751
Parker, J. M., Borke, M. L., Block, L. H., and Cochran, T. G., decomposition of cannabidiol in chloroform solution, 970
Parker, J. W., Peck, G. E., and Banker, G. S., effects of solids-loading on moisture permeability coefficients of free films, 119
Parmar, S. S., Chaturvedi, A. K., Chaudhary, A., and Brumleve, S. J., substituted piperazinoquinazolones: relationship between selective inhibition of nicotinamide adenine dinucleotide-dependent oxidations and anticonvulsant activity, 356
——Joshi, P. C., Ali, B., and Cornatzer, W. E., anticonvulsant activity and inhibition of respiration in rat brain homogenates by substituted oxadiazoles, 872
——Pandey, B. R., Dwivedi, C., and Harbison, R. D., anticonvulsant activity and monoamine oxidase inhibitory properties of 1,3,5-trisubstituted pyrazolines, 1152
——*see* Dwivedi, C., 1124
——*see* Gupta, A. K., 1227
——*see* Misra, R. S., 401
——*see* Singh, S. P., 960, 1948
——*see* Verma, M., 1740
Parrak, V., and Tuckerman, M. M., oscillopolarography of mercaptopurine and its synthesis intermediates using a commercial oscilloscope and an adapter circuit, 622
Parrott, E. L., milling of pharmaceutical solids, 813
Paruta, A. N., *see* Mauger, J. W., 576
Patel, D. M., *see* Zalipsky, J. J., 1784
Patel, M., *see* Carstensen, J. T., 1494
——*see* Steiner, G., 1395
Paul, B. D., Rao, G. S., and Kapadia, G. J., isolation of myricadiol, myricitrin, taraxerol, and taraxerone from *Myrica cerifera* L. root bark, 958
Paul, W. L., *see* Schulman, S. G., 876
Pazdernik, T. L., *see* Tuomisto, J., 1708, 1714
Peck, G. E., *see* Parker, J. W., 119
Peden, R. L., *see* Borne, R. F., 615
Pelletier, O., and Brassard, R., automated analysis of riboflavin in multivitamin preparations, 1138
Penner, M. H., *see* Turdiu, R., 78
Pentikäinen, P. J., Wan, S. H., and Azarnoff, D. L., bioavailability of aminosalicylic acid and its various salts in humans IV: comparison of four brands of the sodium salt, 1431
——*see* Wan, S. H., 708
Penzotti, S. C., Jr., and Poole, J. W., transport mechanisms of β-lactam antibiotics across everted rat gut, 1803
Peot, C. B., *see* Hiestand, E. N., 605
Perchalski, R. J., and Wilder, B. J., GLC microdetermination of plasma anticonvulsant levels, 806
——Wilder, B. J., and Hammer, R. H., flame-ionization and electron-capture GLC determination of 1-(2,6-dimethylphenoxy)-2-aminopropane in plasma, 1489
Perrin, J. H., *see* Gaginella, T. S., 790
Petersen, R. V., *see* Roll, D. B., 1628
Phillips, W. A., Schultz, J. R., and Stafford, W. W., effects of colestipol hydrochloride on drug absorption in the rat I: aspirin, L-thyroxine, phenobarbital, cortisone, and sulfadiazine, 1097
Plantadosi, C., *see* Hall, I. H., 625
——*see* Lee, K.-H., 1162
Pinzauti, S., Dal Piaz, V., and La Porta, E., chloramine-T as titrimetric reagent in potentiometric determination of isoniazid, phenelzine, and dihydralazine, 1446
Pirillo, D., *see* Santagostino, G., 1690
Pisano, M. A., *see* Kupchik, E. J., 261
Pitman, I. H., *see* Bourne, D. W. A., 865
Pittman, K. A., and Portmann, G. A., pharmacokinetics of pentazocine in the rhesus monkey, 84
Plunkett, R. D., *see* Honigberg, I. L., 1762
Pollock, S., *see* Feldman, S., 454
Pong, S. F., and Huang, C. L., comparative studies on distribution, excretion, and metabolism of hydroxyzine-^{3}H and its methiodide-^{14}C in rats, 1527
Poole, J. W., *see* Penzotti, S. C., Jr., 1803
Portmann, G. A., *see* Pittman, K. A., 84
Poulsen, B. J., *see* Chowhan, Z.-U.-D. T., 1808
Poust, R. I., *see* Jaffe, J. M., 1256
——*see* Klink, P. R., 1231
——*see* Pagay, S. N., 44
Powell, D. R., and Burton, B. A., quantitative TLC of salicylazosulfapyridine, 1290
Powell, R. G., *see* Mikolajczak, K. L., 1280
Pradhan, S. N., *see* Kapadia, G. J., 1339
Preste, P. G., Westerman, C. E., Das, N. P., Wilder, B. J., and Duncan, J. H., identification of 2-ethyl-2-methyl-3-hydroxysuccinimide as a major metabolite of ethosuximide in humans, 467
Price, J. C., *see* Madan, P. L., 280
Priest, D. G., Hynes, J. B., Jones, C. W., and Ashton, W. T., quinazolines as inhibitors of xanthine oxidase, 1158
Prox, A., *see* Breyer, U., 1842
Puglisi, C. V., *see* de Silva, J. A. F., 520, 1440, 1837
——*see* Kaplan, S. A., 527
Purcell, W. P., *see* Clayton, J. M., 230
Pytelewski, R., *see* Shah, N., 339

Q

Quimby, M. W., *see* Elsholy, M. A., 1623
Quinn, R. J., Kashiwagi, M., Moore, R. E., and Norton, T. R., anticancer activity of zoanthids and the associated toxin, palytoxin, against Ehrlich ascites tumor and P-388 lymphocytic leukemia in mice, 257
——Kashiwagi, M., Norton, T. R., Shibata, S., Ku-

chii, M., and Moore, R. E., antitumor activity and cardiac stimulatory effects of constituents of *Anthopleura elegantissima*, 1798

R

Rabalais, J. W., *see* Bodor, N., 1387
Rabinowitz, M. P., Reisberg, P., and Bodin, J. I., GLC assay of sorbitol as cyclic *n*-butylboronate, 1601
Raja, P. K., *see* Devani, M. B., 1471
Ranghieri, M., *see* Tosolini, G. P., 1072
Rao, G. S., Sinsheimer, J. E., and Cochran, K. W., antiviral activity of triterpenoid saponins containing acylated β-amyrin aglycones, 471
——*see* Kapadia, G. J., 1339
——*see* Paul, B. D., 958
Rao, K. V., Killion, K., and Tanrikut, Y., GLC determination of fluorouracil, 1328
Ravin, L. J., *see* Mufson, D., 327
Reamer, J. T., *see* King, R. H., 1591
Reavey-Cantwell, N. H., *see* Zalipsky, J. J., 1784
Reed, M., Wilson, G., Davenport, W., Schmitz, T., and Klamrzynski, M., sodium heparin determination: comparison of an instrumental method with the USP method, 1455
Reichstein, T., *see* Kingston, D. G. I., 462
Reif, V. D., Sinsheimer, J. E., Ward, J. C., and Schteingart, D. E., aromatic hydroxylation and alkyl oxidation in metabolism of mitotane (*o,p'*-DDD) in humans, 1730
Reisberg, P., Brenner, I. A., and Bodin, J. I., NMR assay of diastereoisomers of 7 - chloro - 3,3a - dihydro - 2 - methyl - 2*H*,9*H* - isoxazolo(3,2-b)(1,3)benzoxazin - 9 - one using deuterated tris(1,1,1,2,2,3,3 - heptafluoro - 7,7 - dimethyl - 4,6 - octanedionato)europium III shift reagent, 1586
——*see* Rabinowitz, M. P., 1601
Remers, W. A., *see* Naidoo, B. K., 1391
Rhoa, G., *see* Feldman, S., 454
Rhodes, C. T., *see* Fung, H., 1810
Rhodes, H. J., *see* Blake, M. I., 89, 1303, 1645
Richard, A. J., and Garrett, E. R., kinetics and mechanisms of drug action on microorganisms XXI: effect of quinacrine on *Escherichia coli* and its possible complexation with components of nutrient growth medium, 894
——*see* Garrett, E. R., 884
Richards, R. M. E., and McBride, R. J., antipseudomonal effect of polymyxin and phenylethanol, 54
Richardson, J., *see* Feldman, S., 454
Riegelman, S., *see* Boxenbaum, H. G., 1191
——*see* Shah, V. P., 1283, 1364
Robertson, J. S., and Madsen, B. W., kinetic approach to drug–protein binding, 234
Robinson, D. S., *see* Gray, A. P., 159
Robinson, J. R., *see* Chrai, S. S., 333, 1218
Rodriguez-Salazar, C., new compounds: synthesis of *p*-dialkylaminoalkoxybenzoxylidides as possible local anesthetics, 158
Roehrig, G. R., *see* Billman, J. H., 1487
Roll, D. B., Douglas, J. D., and Petersen, R. V., GLC analysis of bis(2-ethylhexyl) phthalate plasticizer in tissue and plasma, 1628
Roos, R. W., identification and determination of synthetic estrogens in pharmaceuticals by high-speed reversed-phase partition chromatography, 594
Rosazza, J., Foss, P., Lemberger, M., and Sih, C. J., microbiological synthesis of L-dopa, 544
Rose, H. A., detection and determination of chrysotile in talc USP, 268
Roseman, T. J., and Yalkowsky, S. H., influence of solute properties on release of *p*-aminobenzoic acid esters from silicone rubber: theoretical considerations, 1639
——*see* Flynn, G. L., 479
Rosenberg, H. A., *see* Bates, T. R., 643
Rosenblum, M. P., *see* West, N. R., 417
Rowe, M. L., *see* Lovering, E. G., 1224
Royer, M. E., *see* Ko, H., 1914
Rubin, S. H., *see* Johnson, J. B., 1931
Rytting, J. H., *see* Hussain, A., 798

S

Sadik, F., *see* Lin, G.-M., 666
Saettone, M. F., *see* Bottari, F., 1779
Safe, L. M., Wong, C. J., and Chandler, R. F., sterols of marine algae, 464
Salama, R. B., and Khalil, S. K. W., colorimetric assay of epinephrine, 1301
Salmona, M., Saronio, C., Bianchi, R., Marcucci, F., and Mussini, E., *in vitro* hydrolysis of oxazepam succinate half-ester by a stereospecific soluble esterase from different animal species, 222
Salpekar, A. M., and Augsburger, L. L., magnesium lauryl sulfate in tableting: effect in ejection force and compressibility, 289
Samyn, J. C., and Murthy, K. S., experiments in powder blending and unblending, 370
Sandmann, B. J., Nesbitt, R. U., Jr., and Sandmann, R. A., characterization of silver sulfadiazine and related compounds, 948
Sandmann, R. A., *see* Sandmann, B. J., 948
Santagostino, G., Facino, R. M., and Pirillo, D., urinary excretion of amitriptyline *N*-oxide in humans, 1690
Santilli, A. A., Kim, D. H., Fieber, R. A., and Wanser, S. V., CNS depressant effects of Schiff bases derived from 4,6-dichloro-5-pyrimidinecarboxaldehydes and substituted anilines, 449
Sanvordeker, D. R., and Kostenbauder, H. B., mechanism for riboflavin enhancement of bilirubin photodecomposition *in vitro*, 404
Sarbeck, J. R., and Landgraf, W. C., automated peak discrimination and integration for nonflame atomic absorption analysis at nanogram levels, 929
Saronio, C., *see* Salmona, M., 222
Schaefer, F. J., *see* Chatten, L. G., 1294
Schell, F. M., *see* Kupiecki, F. P., 1166
Schelling, G. T., *see* Digenis, G. A., 745, 751
Schieferstein, G., *see* Haley, T. J., 1946
Schiff, P. L., Jr., *see* Elsohly, H. N., 1632
——*see* Elsohly, M. A., 1623
——*see* Flor, S. C., 618
Schmitz, T., *see* Reed, M., 1455
Schnaare, R. L., *see* Niebergall, P. J., 100
Schoenwald, R. D., evidence for variable digoxin absorption estimated by pharmacological response intensities, 411
——*see* Isaacs, V. E., 1119, 1267
——*see* Smolen, V. F., 1582
Schott, H., electrokinetic studies on bacteria IV: effect of acridines on *Streptococcus faecalis*, 48
Schowen, R. L., *see* Hogg, J. L., 1620
Schreiber, E. C., metabolically oxygenated compounds: formation, conjugation, and possible biological implications, 1177
——*see* Wong, K. K., 854
Schteingart, D. E., *see* Reif, V. D., 1730
Schulman, S. G., Threatte, R. M., Capomacchia, A. C., and Paul, W. L., fluorescence of 6-methoxyquinoline, quinine, and quinidine in aqueous media, 876
——*see* Capomacchia, A. C., 1272
——*see* Mehta, A. C., 1150
Schulten, H.-R., *see* Brent, D. A., 1370
Schultz, J. R., *see* Phillips, W. A., 1097
Schumacher, G. E., and Nagwekar, J. B., kinetic and thermodynamic aspects of *in vitro* interphase transfer of sulfonamides I: influence of methyl group substitution on transfer of unionized sulfonamides, 240
Schwartz, J. B., log-normal distribution of tablet pore diameters, 774
Sciarra, J. J., pharmaceutical and cosmetic aerosols, 1815
——*see* Dorato, M. A., 1892
——*see* Luongo, M., 1376
Segelman, A. B., and Farnsworth, N. R., *Catharanthus* alkaloids XXXI: isolation of ajmalicine, pericalline, tetrahydroalstonine, vindolinine, and ursolic acid from *Catharanthus trichophyllus* roots, 1419
——Sofia, R. D., Segelman, F. P., Harakal, J. J., and Knobloch, L. C., *Cannabis sativa* L. (marijuana) V: pharmacological evaluation of marijuana aqueous extract and volatile oil, 962
——*see* Babcock, P. A., 1495
Segelman, F. P., *see* Segelman, A. B., 962
Seif El-Nasr, M. M., *see* Abu-Eittah, R., 1866
Sekules, G., *see* Baker, K. M., 293
Senkowski, B. Z., *see* Burke, D., 269
Serafini, M. F., *see* Bottari, F., 1779
Sezaki, H., *see* Kobayashi, H., 580
Shaflee, A., *see* Lalezari, I., 628
Shah, A. C., and Ochs, J. F., design and evaluation of a rotating filter–stationary basket *in vitro* dissolution test apparatus II: continuous fluid flow system, 110
Shah, D., and Ecanow, B., effect of temperature and sodium chloride on drag reduction by sodium carboxymethylcellulose and guar gum, 1164
Shah, J., *see* Dravnieks, A., 36
Shah, N., Pytelewski, R., Eisen, H., and Jarowski, C. I., influence of dispersion method on dissolution rate and bioavailability of digoxin from triturations and compressed tablets II, 339
——*see* Ampolsuk, C., 117
Shah, V. P., and Riegelman, S., GLC determination of theophylline in biological fluids, 1283
——Wallace, S. M., and Riegelman, S., microultrafiltration technique for drug–protein binding determination in plasma, 1364
Shamma, M., and St. Georgiev, V., camptothecin, 163
Shangraw, R. F., *see* Contractor, A. M., 907
Shankle, L. L., Troup, A. E., and Duvall, R. N., determination of calcium pantothenate in chewable multivitamin tablets, 265
Sharma, P. V., *see* Bhattacharya, S. K., 1341
——*see* Ghosal, S., 944, 1286
Shaw, S. M., *see* Dirksen, J. W., 637
——*see* Foulke, J. D., 563
——*see* Morgan, H. K., 1759
Shaw, S. R., *see* Kaiser, D. G., 567, 1094
Shelton, D., *see* Tan, H. S. I., 916
Shen, D., and Gibaldi, M., critical evaluation of use of effective protein fractions in developing pharmacokinetic models for drug distribution, 1698
Sherwood, B. E., *see* Nelson, W. L., 1467
Shibata, S., Dunn, D. F., Kuchii, M., Kashiwagi, M., and Norton, T. R., cardiac stimulant action of extracts of coelenterates on rat atria, 1332
——*see* Quinn, R. J., 1798
Shishoo, C. J., *see* Devani, M. B., 1471
Shroff, A. P., *see* Huettemann, R. E., 74
Sicardi, S. M., Lamdan, S., and Gaozza, C. H., new compounds: 4-substituted 5,6-dihydro-2-*o* - hydroxyphenyl - 4*H* - 1,3,4 - oxidiazine - 5 - ones, potential psychopharmacological drugs, 1336
Sigel, C. W., Grace, M. E., Nichol, C. A., and Hitchings, G. H., specific TLC determination of trimethoprim and sulfamethoxazole in plasma, 1202
Sih, C. J., *see* Rosazza, J., 544
Simonelli, A. P., *see* Weiss, J., 381
Sims, B., and Holder, S. L., surface activity of prostaglandins E_2, $F_{2\alpha}$, A_1, and B_1 in presence of insoluble monomolecular films, 1540
Singh, A. K., *see* Bhattacharya, S. K., 1341
——*see* Ghosal, S., 944
Singh, S. P., Auyong, T. K., and Parmar, S. S., anticonvulsant activity of substituted 4-thiazolidones, 960
——Chaudhari, A., Barthwal, J. P., and Parmar, S. S., anticonvulsant activity and selective inhibition of nicotinamide adenine dinucleotide-dependent oxidations by 1,3,5-trisubstituted pyrazolines, 1948
Sinkula, A. A., chemical modification of erythromycin: synthesis and preliminary bioactivity of selected amides and esters, 842
Sinsheimer, J. E., *see* Rao, G. S., 471
——*see* Reif, V. D., 1730
Skauen, D. M., heat production by ultrasonic equipment, 114
Sklerkowski, P., and Beasley, M., effect of γ-radiation on yield of insulin from beef pancreas

glands, 964
Slatkin, D. J., *see* Elsohly, H. N., 1632
——*see* Elsohly M. A., 1623
Slunick, T. G., *see* Yalkowsky, S. H., 691
Slywka, G. W. A., *see* Meyer, M. C., 1693
Smissman, E. E., *see* Tuomisto, J., 15, 1708, 1714
Smith, A. P., *see* Honigberg, I. L., 766, 1762
Smith, C. F. C., *see* Lewis, J. W., 1951
Smith, C. I., and Hsu, P. L., sulfide, disulfide, and sulfone derivatives of 2-phenylcinchoninic acid as antimalarial congeners, 156
Smith, C. R., Jr., *see* Mikolajczak, K. L., 1280
Smith, G. G., Kennedy, D. R., and Nairn, J. G., hydrolysis kinetics of benzocaine and homologs in the presence of a nonionic surfactant, 712
Smith, H. L, sorption rates of water-soluble dyes on soft gelatin capsules, 639
Smith, R. V., and Cook, M. R., conversion of apocodeine to apomorphine and norapomorphine in rats, 161
Smith, W. E., *see* Malinowski, H. J., 285
Smolen, V. F., and Schoenwald, R. D., drug absorption analysis from pharmacological data III: influence of polymers and pH on transcorneal biophasic availability and mydriatic response of tropicamide, 1582
Smyth, M., *see* Hersey, J. A., 408
Sneddon, W., *see* Madsen, B. W., 777
Snyder, J. M., *see* Contractor, A. M., 907
Soares, J. R., and Hite, G., mechanism and stereochemistry of a novel reaction of cyanogen bromide with (+)-1-methyl-3-benzoyl-3-hydroxypiperidine, 298
Sofia, R. D., Kubena, R. K., and Barry, H., III, comparison among four vehicles and four routes for administering Δ^9-tetrahydrocannabinol, 939
——*see* Segelman, A. B., 962
Soine, T. O., and Naghaway, J., preparation and curarimimetic activity of (+)-isotubocurarine, 1643
Sokoloski, T. D., *see* Hoener, B.-A., 1901
——*see* Nazareth, R. I., 199
Soldati, G., new compounds: unusual chlorination of 2,3-dimethyl-1,2,4-benzothiadiazine 1,1-dioxide, 1634
Soliman, S. A., Abdine, H., and Zakhari, N. A., indirect nonaqueous titration of hydrochlorides of nitrogenous bases, 1767
Solomon, T. A., and Buckley, J. P., inhibitory effects of central hypertensive activity of angiotensin I and II by 1-sar-8-ala-angiotensin II (saralasin acetate), 1109
——Cavero, I., and Buckley, J. P., inhibition of central pressor effects of angiotensin I and II, 511
Solomons, W. E., and Doorenbos, N. J., synthesis and antimicrobial properties of 17β-amino-4-aza-5α-androstane and derivatives, 19
Soloway, A. H., and Davis, M. A., survey of radiopharmaceuticals and their current status, 647
Sondack, D. L., GLC analysis of ergonovine maleate, 584
——TLC separation and identification of diastereomers of D-ergonovine maleate, 1141
Sossi, N., *see* Frigerio, A., 1536
Sprawls, R. W., *see* Haley, T. J., 1946
Sprieck, T. L., high-pressure liquid chromatographic determination of adrenergic and antihistaminic compounds in pharmaceutical preparations, 591
Sprince, H., *see* West, N. R., 417
Stafford, J. E., *see* Sun, F. F., 539
Stafford, W. W., *see* Phillips, W. A., 1097
Stanaszek, W. F., Levinson, R. S., and Ecanow, B., halothane uptake by coacervate systems, 1941
Starks, F. H., *see* Novotny, J., 1264
Stauffer, S. C., *see* Hucker, H. B., 296
Steindel, S. J., *see* Miles, D. H., 613
Steiner, G., Patel, M., and Carstensen, J. T., effects of milling on granulation particle-size distribution, 1395
Steren, C., *see* Turi, P., 1309
Sterling, J. M., and Haney, W. G., spectrophotofluorometric analysis of procainamide and sulfadiazine in presence of primary aliphatic amines based on reaction with fluorescamine, 1448
——Cox, S., and Haney, W. G., comparison of procainamide analyses in plasma by spectrophotofluorometry, colorimetry, and GLC, 1744
Stern, P. W., effects of hydraulic pressure and nozzle orifice size on delivery rates of sprayed materials, 1171
Sternson, L. A., and Coviello, D. A., *O*-alkyloxime derivatives: a new group of compounds with antibacterial activity, 967
Stewart, J. T., Lo, H. C., and Mason, W. D., determination of methyldopa in pharmaceutical dosage forms and biological fluids based on oxidation at the tubular carbon electrode, 954
——*see* Honigberg, I. L., 766, 1762
St. Georgiev, V., *see* Shamma, M., 163
Stoel, L. J., *see* Asleson, G. L., 1144
Stone, J. C., and Gorby, R., improved method for salicylazosulfapyridine analysis and partial characterization of impurities in commercial salicylazosulfapyridine, 1296
Strom, J. G., and Jun, H. W., gastric irritation and bleeding after drug administration, 1812
Sugita, E. T., *see* Niebergall, P. J., 100
Sun, F. F., and Stafford, J. E., metabolic fate of *N,N* - dimethyl - *N'* - (*p* - phenoxyphenyl)sulfamide in rat, dog, and human, 539
——*see* Brodasky, T. F., 360
Surpuriya, V., and Higuchi, W. I., enhancing effect of calcium ions on transport of cholesterol from aqueous sodium taurocholate–lecithin micellar phase to oil phase, 1325
Svoboda, G. H., *see* Flor, S. C., 618
Swarbrick, J., *see* Amann, A. H., 931
Swintosky, J. V., *see* Digenis, G. A., 745, 751

T

Taha, A. M., Ahmad, A. K. S., Gomaa, C. S., and El-Fatatry, H. M., charge-transfer complexes in alkaloid assay, 1853
——Omar, N. M., Bayomi, S. M., Ammar, E. M., and Afifi, A., synthesis and screening of cyclic benzylhydrazine congeners as antidepressants, 395
Tallefer, S. L., *see* Bailey, K., 1575
Takenaka, H., *see* Kawashima, Y., 1546
Takeuchi, Y., *see* Utsumi, I., 676
Tan, H. S. I., and Shelton, D., colorimetric analysis of procaine hydrochloride, 916
Tang, A., *see* Hanna, S., 1954
Tanner, N. S., *see* Wolters, R. J., 1379
Tanrikut, Y., *see* Rao, K. V., 1328
Tao, L., *see* Hofmann, L. M., 1248
Taphorn, J. E., III, *see* Davis, G. M., 1136
Tausendfreund, R. A., *see* Turi, P., 1309
Tayim, H. A., Malakian, A. H., and Bikhazi, A. B., synthesis and physicochemical, antimitogenic, and antiviral properties of a novel palladium (II) coordination compound, 1469
Taylor, M. L., *see* Data, J. B., 848
Taylor, W. G., *see* Dimmock, J. R., 69
Templeton, J. L., *see* Hammer, R. H., 1963
Tensmeyer, L. G., *see* Thakkar, A. L., 1319
Thaker, E., *see* Gisvold, O., 1905
Thakkar, A. L., and Tensmeyer, L. G., complexation of theophylline with sodium benzoate: an NMR study, 1319
Theeuwes, F., Hussain, A., and Higuchi, T., quantitative analytical method for determination of drugs dispersed in polymers using differential scanning calorimetry, 427
Thom, L., *see* Brian, B., 633
Thomas, B. H., Zeitz, W., and Coldwell, B. B., effect of aspirin on biotransformation of ^{14}C-acetaminophen in rats, 1367
Thomas, R., Boutagy, J., and Gelbart, A., synthesis and biological activity of semisynthetic digitalis analogs, 1649
Thompson, C. C., *see* Clayton, J. M., 230
Thompson, E. B., Aynilian, G. H., Gora, P., and Farnsworth, N. R., preliminary study of potential antiarrhythmic effects of *Crataegus monogyna*, 1936
Thorstenson, J. H., *see* Kornet, M. J., 1090
Threatte, R. M., *see* Schulman, S. G., 876
Tin-Wa, M., Bell, C. L., Bevelle, C., Fong, H. H. S., and Farnsworth, N. R., potential anticancer agents I: confirming evidence for the structure of fagaronine, 1476
Tosolini, G. P., Moro, E., Forgione, A., Ranghieri, M., and Mandelli, V., GLC determination of plasma levels of enantiomers of α-[4-(1-oxo-2-isoindolinyl)phenyl]propionic acid, 1072
Trenner, N. R., Carlin, J. R., Arison, B. H., and VandenHeuvel, W. J. A., urinary metabolites of D,L - 1,2 - bis[5 - (6) - methoxy - 2 - benzimidazolyl]-1,2-ethanediol in mice, 1312
Triyanond, K., *see* Mufson, D., 327
Troup, A. E., *see* Shankle, L. L., 265
Truelove, J. E., *see* Hussain, A., 627
Tsau, J., *see* Garrett, E. R., 1563
Tsilfonis, D. C., *see* Chafetz, L., 1771
Tucker, F. E., *see* Borodkin, S., 1359
Tucker, G. T., *see* Mather, L. E., 306
Tucker, R. E., *see* Digenis, G. A., 745
Tuckerman, M. M., *see* Gibbs, I. S., 276
——*see* Parrak, V., 622
Tuomisto, J., Smissman, E. E., Pazdernik, T. L., and Walaszek, E. J., decalin analogs of phenethylamines as inhibitors of amine uptake by rabbit platelets I: uptake and distribution of histamine, 1708
——Walaszek, E. J., and Smissman, E. E., structure–activity relationship studies on inhibition of histamine uptake by rabbit blood platelets, 15
——Walaszek, E. J., Smissman, E. E., and Pazdernik, T. L., decalin analogs of phenethylamines as inhibitors of amine uptake by rabbit platelets II: uptake of 5-hydroxytryptamine, 1714
Turczan, J. W., and Medwick, T., NMR analysis of pharmaceuticals XII: determination of amantadine hydrochloride in soft gelatin capsules and syrups, 425
Turdiu, R., Penner, M. H., and Chafetz, L., reaction of *N*,3,3-trimethyl-1-phenyl-1-indanpropylamine hydrochloride with 7-chloro-4-nitrobenzofurazan and its application to spectrophotofluorometric assay, 78
Turi, P., Tausendfreund, R. A., Michaelis, A. F., and Steren, C., rapid evaluation of effect of excipients on color fading II, 1309
Turner, C. E., Hadley, K. W., Henry, J., and Mole, M. L., constituents of *Cannabis sativa* L. VII: use of silyl derivatives in routine analysis, 1872
——*see* Mole M. L., Jr., 154, 1169
Tweeddale, M. G., and Ogilvie, R. I., improved method for estimating chlorthalidone in body fluids, 1065

U

Uekama, K., *see* Ikeda, K., 1168
Utsumi, I., Kohno, K., and Takeuchi, Y., surfactant effects on drug absorption III: effects of sodium glycocholate and its mixtures with synthetic surfactants on absorption of thiamine disulfide compounds in rat, 676

V

Valenta, J., *see* Zarembo, J. E., 1407
Valiner, J. J., *see* Gaginella, T. S., 790
VandenHeuvel, W. J. A., *see* Trenner, N. R., 1312
VanGiessen, G. J., *see* Kaiser, D. G., 219, 567
Ventura, P., *see* Casu, B., 211
Venturella, V. S., *see* Burke, D., 269
Verma, M., Chaturvedi, A. K., Chaudhari, A., and Parmar, S. S., monoamine oxidase inhibitory and anticonvulsant properties of 1,2,4-trisubstituted 5-imidazolones, 1740
Vetter, R. J., *see* Foulke, J. D., 563
Vidi, A., Franco, C., and Bonardi, G., new method for quantitative determination of D-dopa in levodopa samples, 1130

Vogel, W. H., *see* West, N. R., 417

W

Wagner, W. E., *see* Zak, S. B., 225
Walaszek, E. J., *see* Tuomisto, J., 15, 1708, 1714
Walker, G. C., *see* Cobby, J., 725, 732
Walker, K. E., *see* Ho, B. T., 1261
Wallace, J. E., and Hamilton, H. E., diphenylhydantoin microdetermination in serum and plasma by UV spectrophotometry, 1795
——*see* Hamilton, H. E., 741
Wallace, S. M., *see* Shah, V. P., 1364
Walle, T., GLC determination of propranolol, other β-blocking drugs, and metabolites in biological fluids and tissues, 1885
Walter, L. J., Biggs, D. F., and Coutts, R. T., simultaneous GLC estimation of salicylic acid and aspirin in plasma, 1754
Wan, L. S. C., and Lee, P. F. S., CMC of polysorbates, 136
Wan, S. H., Pentikäinen, P. J., and Azarnoff, D. L., bioavailability of aminosalicylic acid and its various salts in humans III: absorption from tablets, 708
——*see* Pentikäinen, P. J., 1431
Wang, G. M., *see* Wong, K. K., 854
Wanser, S. V., *see* Santilli, A. A., 449
Ward, C. O., *see* Dorato, M. A., 1892
——*see* Luongo, M., 1376
Ward, J. C., *see* Reif, V. D., 1730
Waters, I. W., *see* Borne, R. F., 615, 1559
Watson, J. R., determination of purity of levodopa and levodopa products by GLC, 96
Weiner, M., *see* Borne, R. F., 615
Weiner, N. D., *see* Flynn, G. L., 300
——*see* Lodhi, S. A., 738
——*see* Malick, A. W., 398
Weinfeld, R. E., *see* de Silva, J. A. F., 1440
——*see* Kaplan, S. A., 527
Weisbach, J. A., *see* Zarembo, J. E., 1407
Weiss, J., Zografi, G., and Simonelli, A. P., direct estimation of hexadecyltrimethylammonium-ion adsorption at liquid interfaces by a radioisotope technique I: specific ion effects at air–water interface, 381
Weiss, S. G., *see* Aynilian, G. H., 536
Welling, P. G. *see* Gaginella, T. S., 1849
West, N. R., Rosenblum, M. P., Sprince, H., Gold, S., Boehme, D. H., and Vogel, W. H., assay procedures for thioridazine, trifluoperazine, and their sulfoxides and determination of urinary excretion of these compounds in mental patients, 417
Westcott, A., *see* Kabasakalian, P., 641
Westerman, C. E., *see* Preste, P. G., 467
Whillow, R. J., Needham, T. E., and Luzzi, L. A., generation of particulate matter in large-volume parenteral containers, 1610
Whitworth, C. W., and Asker, A. F., effect of small-scale preparation techniques on diffusion of salicylic acid from various ointment bases, 1618
——and Asker, A. F., stability of aspirin in liquid and semisolid bases IV: polyethylene glycol 400 diacetate and triethylene glycol diacetate, 1790
——*see* Asker, A. F., 966, 1630, 1774
——*see* Jun, H. W., 133
Whyatt, P. L., *see* Meyer, M. C., 1693
Wiedhopf, R. M., *see* Jolad, S. D., 1321
Wilder, B. J., *see* Perchalski, R. J., 806, 1489
——*see* Preste, P. G., 467
Wilkinson, G. R., *see* Guttman, D. E., 1625
Wilson, G., *see* Reed, M., 1455
Wingard, L. B., Jr., *see* Yacobi, A., 868
Winterborn, I. K., Meakin, B. J., and Davies, D. J. G., influence of cetrimonium bromide on base-catalyzed hydrolysis of *p*-substituted ethyl benzoates, 64
Witiak, D. T., *see* Nazareth, R. I., 199
Wittmer, D., and Haney, W. G., Jr., analysis of riboflavin in commercial multivitamin preparations by high-speed liquid chromatography, 588
Witty, T. R., *see* Naidoo, B. K., 1391
Wolf, M. B., *see* Kertesz, J. C., 880
Wolf, W., *see* Kertesz, J. C., 880
Wolters, R. J., Bej, A. J., and Tanner, N. S., conformationally constrained analogs of mescaline, 1379
Wong, C. J., *see* Safe, L. M., 464
Wong, K. K., Wang, G. M., Dreyfuss, J., and Schreiber, E. C., effect of substituted dibenzoxazepines on levels of reduced glutathione and potassium ions in lenses of rabbits *in vitro* and of rats *in vivo*, 854
Woodside, W., *see* King, J. A., 804
Worley, S. D., *see* Bodor, N., 1387
Wright, G. C., and Halliday, R. P., synthesis and hypotensive properties of 4-amino-6,7-dimethoxyisoquinoline, 149
Wu, C. M., *see* Bates, T. R., 643

X

Y

Yacobi, A., Wingard, L. B., Jr., and Levy, G., comparative pharmacokinetics of coumarin anticoagulants X: relationship between distribution, elimination, and anticoagulant action of warfarin, 868
——*see* Levy, G., 805
Yalkowsky, S. H., and Flynn, G. L., correlation and prediction of mass transport across membranes II: influence of vehicle polarity on flux from solutions and suspensions, 1276
——Slunick, T. G., and Flynn, G. L., effects of alkyl chain length on biological activity: alkyl *p*-aminobenzoate-induced narcosis in goldfish, 691
——*see* Amidon, G. L., 1858
——*see* Flynn, G. L., 300, 479
——*see* Roseman, T. J., 1639
——*see* Zografi, G., 1533
Yamasaki, M., *see* Hussain, A., 627
Yang, K., *see* Digenis, G. A., 745, 751
Yap, S. K., *see* Fung, H., 1810
Yazdany, S., *see* Lalezari, I., 628
Young, J. M., *see* Bates, T. R., 643
Yousef, R. T., *see* Elkhouly, A. E., 681

Z

Zak, S. B., Bartlett, M. F., Wagner, W. E., Gilleran, T. G., and Lukas, G., disposition of hydralazine in man and a specific method for its determination in biological fluids, 225
Zakhari, N. A., *see* Soliman, S. A., 1767
Zalipsky, J. J., Patel, D. M., and Reavey-Cantwell, N. H., hydrolytic degradation of methaqualone, 1784
Zalkow, L. H., *see* Miles, D. H., 613
Zarembo, J. E., Douglas, B., Valenta, J., and Weisbach, J. A., metabolites of mitragynine, 1407
——*see* Mufson, D., 327
Zaroslinski, J. F., *see* Mais, R. F., 1423
Zatz, J. L., condensing effect of cholesterol: a physical model, 858
Zayed, A., *see* Nabih, I., 946, 1806
Zeitz, W., *see* Thomas, B. H., 1367
Zeleznick, L. D., *see* Brian, B., 633
Zikopoulos, J., *see* Ben-Zvi, Z., 1173
Zografi, G., and Yalkowsky, S. H., interfacial properties of polar liquids against nonpolar phases, 1533
——*see* Weiss, J., 381

SUBJECT INDEX

A

Abrasions, skin—instrument for producing standardized abrasions, 106

Absorption, acetaminophen from polyethylene glycol suppositories—effect of vehicle dielectric properties, 44

—aminosalicylic acid and salts from commercial tablets, humans, 708

and distribution, drug—effects of body and environmental temperature, 1345

digoxin—evidence for variability estimated by ventricular rate slowing, dose–effect and response–time curves constructed, 411

drug—effects of colestipol hydrochloride on various drugs, rat, 1097

—effect of ethanol on theophylline intestinal absorption, rat small intestine, 829

intestinal drug—theoretical model described, simultaneous active and passive transport of conjugated and unconjugated bile acids, premicellar concentrations, diffusion layer–membrane barrier, 686

intestinal—effect of γ-radiation on rate of sulfanilamide absorption, rats, 645

intramuscular—effects of surfactants, water-soluble, micelle-free drugs, absorption rates, plasma levels, rat muscle, 580

kinetics—pentobarbital, 1114

ophthalmic (corneal)—effect of prebuffering and/or adding viscolizers and surfactant, homatropine hydrobromide and tropicamide, rabbits, 721

percutaneous—effects of dimethyl sulfoxide and trimethylphosphine oxide on corticosteroid absorption, rat, 793

(thiamine disulfide compounds)—effects of biosurfactants and synthetic surfactants, rats, 676

water vapor—solid dosage forms, effects of film application method and film material, 931

Acacia—interaction with gelatin on stearyl alcohol particle surface, microencapsulation, wall thickness, surface appearance, 280

Acacia–gelatin coacervate system—halothane uptake, compared to similar broken system, 1941

Aceclidine—ophthalmic bioavailability, corneal penetration into rabbit eye, perfusion technique, analytical determination, 633

5-Acetamido-1-methyl-2-(2′-pyrimidyl)imidazole—identified as metabolite of 1-methyl-5-nitro-2-(2′-pyrimidyl)imidazole, 293

Acetaminophen absorption from polyethylene glycol suppositories—effect of vehicle dielectric properties, 44

chlorpheniramine maleate, and dextromethorphan hydrobromide mixtures—high-speed liquid chromatographic separation and UV analysis, 430

—effect of aspirin on absorption and biotransformation, rat, 1367

—method for separation and analysis in combination with phenylephrine hydrochloride, diphenhydramine hydrochloride, and ascorbic acid, 91

timed-release dosage forms—prepared by suspension polymerization of polystyrene, 440

—urinary excretion by the rat, suitability of the rat as an experimental animal, 969

Acetaminophen–barbiturate in combination—analysis by differentiating nonaqueous titration, 89

Acetic acid—interference of trace acetic anhydride in nonaqueous titration of primary aromatic amines (procainamide hydrochloride), 919

Acetonitrile–benzene binary solvent system—used for determination of half-neutralization potential of acids, effect of dielectric constant, 696

17α-Acetoxy-6α-methyl-4-pregnen-3,10-dione 3-oxime—conversion to diketone, effects of ester substituent at oxime function and C-17 position, modifications in ring B, mechanisms of hydrolysis, 74

Acetylcholine, 2-azabicyclo[2.2.2]octane analogs—synthesized and screened for cholinergic activity, 1559

perchlorates, deuterium labeled—synthesis, 1620

Acid–dye technique—ion-pair extraction of ethambutol–bromthymol blue complex, precipitation and analysis, 1764

Acid-esters, bifunctional—novel synthesis using 1,1-dimethylhydrazine and a dimethyl ester and conversion of the resulting trimethylhydrazonium ester, 1155

Acid-neutralizing velocity—reduced rate of spray-dried agglomerated magnesium carbonate, model, equations, 1546

Acid salts—synthesis of water-soluble derivatives of 3-oxy-substituted 1,4-benzodiazepines, tested for water solubility, stability, and pH, 1880

***Acokanthera longiflora* Stapf.**—isolation, identification of three cytotoxic cardenolides, 462

Acridine derivatives—synthesized, evaluated as potential fluorescence probes for drug–protein binding studies, 32

derivatives—valence tautomerism of singly protonated 9-aminoacridine, implications for intercalative interactions with nucleic acids, electronic absorption and fluorescence spectroscopy, 1272

—effect on electrophoretic mobility of *Streptococcus faecalis,* 48

Activation energies—integral approach to nonisothermal estimation, computer program, example from literature, 777

Adenosine and adenosine triphosphate—interaction with salicylic acid, mechanism of aspirin-induced GI blood loss, 966

Adrenergic–antihistaminic tablets and syrups—high-pressure liquid chromatographic analysis, 591

Adsorption—benzoic acid on sulfamethazine, suppression by polyvinylpyrrolidone, effect of contact time, 1788

—radioisotope technique for direct estimation of hexadecyltrimethylammonium ion at air–water interface, specific ion effects, 381

Aerosol anti-infectives (neomycin sulfate and triclosan)—determination of *in vivo* effectiveness of spray-on bandages, guinea pigs, 1376

propellants, fluorocarbon—partition coefficients in six solvents, 532

—evaluation of telemetry for determining toxicity, 1892

—fluorocarbon propellants, effect of water vapor on sensitivity of electron-capture detector, GC analysis, 1776

—loss of three fluorocarbon propellants from various containers, effects of time, temperature, and concentration, 1614

nitroglycerin—formulated, compared to sublingual tablets in humans, 907

pharmaceutical and cosmetic—product formulation, components, manufacturing and packaging, testing, toxicity, and abuse, review, 1815

Albumin microspheres—vehicles for specific drug delivery systems, 1646

Alcohol (monohydric)–water solutions—effect on hemolysis of human erythrocytes, 60

aliphatic—solubility in water, correlated with surface areas and boiling points, 1858

Aldehydes, aromatic—effects on catechol-*O*-methyltransferase and *O*-methylation of dopamine and norepinephrine *in vitro,* syntheses of Schiff bases and tetrahydroisoquinoline derivatives as substrates, 1261

Algae, marine—isolation and identification of free and bound sterols, 464

Aliphatic hydrocarbons and alcohols—solubility of 73 determined, correlated with surface areas and boiling points, 1858

Alkalinization, urine—effects on doxycycline excretion, comparison of single-dose and multiple-dose regimens, half-lives, humans, 1256

Alkaloids, pentacyclic—structure elucidation, synthesis, and pharmacology of camptothecin, 163

—spectrophotometric assay, charge-transfer complexes, 1853

2-Alkoxyiminoalkylmercaptan derivatives—synthesized as potential radioprotective agents, 1786

3-Alkyl benzoate/benzhydrazide aminomethyl benzoxazole/benzthiazole-2-thiones—synthesis, anticonvulsant activity and relationship to inhibition of NAD-dependent oxidations and monoamine oxidase, 401

***O*-Alkyloxime** derivatives—synthesized and screened as potential antibacterial agents, 967

Alkyltrimethylammonium bromides—interactions with anionic dyes, phase separation techniques and microscopy, 548

Allopurinol—prodrug approach used to enhance dissolution, 798

Aluminum hydroxide gel—effect of washing on physicochemical properties, loss of electrophoretic mobility, elution of chloride ion, 635

Amantadine hydrochloride—NMR analysis of soft gelatin capsules and syrups, 425

Amantadines, phosphorylated—synthesis and screening for antileukemic properties, 1480

4-Amidino-17α-methyl-4-aza-5α-androstan-17β-ol and **4-(β-guanidinoethyl)-17α-methyl-4-aza-5α-androstan-17β-ol**—synthesis, antimicrobial activity, 620

Amine drugs (basic)—GLC analysis of plasma samples, 306

Amines, as inhibitors of histamine uptake by rabbit blood platelets—correlation between activity and structure, 15

primary aromatic—interference of trace acetic anhydride in nonaqueous titrimetry, improved procedure and alternative nitrite titration, 919

9-Aminoacridine—valence tautomerism of singly protonated form, implications for intercalative interactions with nucleic acids, electronic absorption and fluorescence spectroscopy, 1272

***p*-Aminobenzoate esters**—nonionic surfactant effect on alkaline hydrolysis, solubility, and UV absorbance, 712

***p*-Aminobenzoic acid** ester-induced narcosis in goldfish—chain length effect, solubility-limited diffusional model, equations, 691

esters—*in vitro* release from silicone matrix, effect of solute properties, chain length, theory, equations, 1639

α-Aminobenzylphosphonic acid monoesters—synthesis, 965

γ-Aminobutyric acid, related agents—structure–activity studies, molecular orbital calculations, relation to previously proposed pharmacophore, 1435

5-Aminodibenzo[*a,d*]cycloheptenes—hydrolysis rates compared to cycloheptanes, effect of 5-amino substituents, 1908

4-Amino-6,7-dimethoxyisoquinoline—synthesis and hypotensive properties, structural isomer of amiquinsin hydrochloride, 149

2-Amino-4-hydroxy-6-hydroxymethylpteridine pyrophosphate—synthesis and biological evaluation, effectiveness as substrate for dihydropteroate synthetase, 1474

2-Amino-4-nitrobenzenes—determination of sweetness levels, model interaction energy calculations, 1722

10(e)- and 10(a)-Amino-1,2,3,4,4a,9,10,10a-(*trans*-4a,10a)-octahydrophenanthrene—

synthesized and evaluated for amphetamine behavioral and hyperthermia effects, 1467
Aminophosphonic acids—as terminal portion of synthesized peptides, 1087
β-Aminopropionitrile—used to study effects of sodium salicylate on metabolism of lathyrogen-treated fibroblasts, 1211
Aminoquinolizinium bromides (2-substituted)—synthesis and anti-inflammatory evaluation, 1939
Aminosalicylic acid and salts—absorption from commercial tablets compared, humans, 708
sodium salt, tablets—bioavailability of four commercially available products compared, 1431
Amiquinsin hydrochloride—synthesis and hypotensive properties of the structural isomer 4-amino-6,7-dimethoxyisoquinoline, 149
Amitriptyline—excretion of *N*-oxide urinary metabolite in humans, 1690
—GLC determination in plasma, 296
Amphetamine—comparison of five fluorometric methods, 1150
derivatives—synthesis of 10(e)- and 10(a)-amino - 1,2,3,4,4a,9,10,10a-(*trans*-4a,10a)-octahydrophenanthrene, evaluated for amphetamine behavioral and hyperthermia effects, 1467
Ampicillin and hetacillin interconversion in aqueous solution—mechanism, effect of acetone concentration, determination by hydroxylamine assay, IR analysis, and ^{14}C-labeling, 1197
Analgesic, antihistaminic, and antitussive drugs—retention times, high-pressure liquid chromatography, application to analysis of cough–cold mixtures, 766
investigational indolazinoindole—effects on intestinal motility investigated, 787
Analysis—drugs in dosage forms, difference spectrophotometry, 1921
Anesthetics, local, potential—synthesis of *p*-dialkylaminoalkoxybenzoxylidides, 158
Angiotensins I and II—inhibition of central hypertensive activity by saralasin acetate, intravenous and intraventricular administration, cats, 1109
—inhibition of central pressor effects by pentapeptide and nonapeptide of *Bothrops jararaca* venom, anesthetized cat, 511
Anilines, substituted—reacted with 4,6-dichloro-5-pyrimidinecarboxaldehydes to form Schiff bases, CNS depressant activity, 449
Anilino-[3-methoxy-4-(4-arylthiosemicarbazidocarbonylmethyleneoxy)]benzylidines, substituted—synthesis, characterization, monoamine oxidase, antihemolytic, and anticonvulsant activities, 1124
8-Anilino-1-naphthalenesulfonic acid—used as probe for radioimmunoassay of triiodothyronine, relevance to evaluation of thyroid hyperfunction, 1214
Anion-exchange polymers, colestipol hydrochloride—effects on absorption of various drugs, rat, 1097
Antacids—effect on bioavailability of digoxin, 1641
—spray drying, effect on acid-neutralizing velocity, 1546
***Anthopleura elegantissima* (Brandt)**—separation of constituents, screened for antitumor activity and cardiac stimulation effects, 1798
Anthozoans—ethanol extracts, cardiac stimulant activity, rat atria, 1332
Anthranilic acid, *para*-substituted *N*-benzenesulfonyl derivatives—synthesized and screened for anti-inflammatory activity, 615
Anthraquinone aglycones and corresponding glycosides—extraction and separation from plant material by electropaperography, 1316
Antiandrogenic agents, cyproterone acetate—effect on maternal behavior in mice, cannibalism, 152
Antiarrhythmic activity—*C. monogyna* leaf and bark extracts screened, 1936
agents—time-dependent effect of oral procainamide in patients with exertional arrhythmias, 1958
Antibacterial activity—evaluation of 13 5-nitro-2-furfurylidene *p*-sulfonyl- and *p*-sulfamoylbenzoylhydrazides, 1485
activity—relationship to pH, glutaraldehyde, 804
activity—substituted decyloxybarbituric and decylthiobarbituric acids, 469
activity—synthesis and evaluation of *N*-phenyl-*N'*-cyano-*O*-(triphenylstannyl)isourea, 261
agents, potential—synthesis and screening of *O*-alkyloxime derivatives, 967
agents, potential—synthesis and screening of pyridyl-1,2,3-thiadiazoles and pyridyl-1,2,3-selenadiazoles, 628
efficiency—five mercurial compounds tested against *S. aureus* and *Ps. aeruginosa*, effect of sodium thioglycolate in nutrient medium, 681
Antibiotic activity—kinetics and mechanisms of sodium fusidate inhibition of *E. coli* generation, 884
β-lactam—transport mechanisms across everted rat gut, 1803
—microbiological diffusion assay, influence of variations in prediffusion time, incubation temperature, density of inoculation, composition of medium, and thickness of agar studied using Cooper equation, 1459
—pharmaceutical aspects, 995
Antibodies, polypeptide produced—specificity, review, 313
Anticancer agents, potential—confirmation of fagaronine structure, 1476
—isolation and characterization of dihydroguaiaretic acid, norisoguaiacin, and 3'-demethoxyisoguaiacin from *L. divaricata*, screening, 1905
—pharmacological testing of zoanthids and palytoxin against Ehrlich ascites tumor and P-388 leukemia, 257
—synthesis of phenylphosphono(thio)dihydrazides and phosphorylated thiosemicarbazides, 1736
—synthesis and screening of phosphoramantadine derivatives, 1480
Anticoagulants, coumarin—comparative pharmacokinetics of warfarin, relationships between distribution, elimination, and activity, biological half-life, volume of distribution, 868
—GLC determination of warfarin in human plasma, 1579
—kinetics of heparin removal from circulation of minipig, 138
Anticonvulsant activity—relationship to inhibition of respiratory activity, substituted thiosemicarbazides and oxadiazoles, 872
activity—substituted benzylidenes, relationship to monoamine oxidase inhibitory and antihemolytic activity, 1124
activity—substituted pyrazolines, relationship to monoamine oxidase inhibitory properties, 1152
activity—synthesis and evaluation of 1-(*N*-acetyl-substituted piperidino)-3-aryl carbamides, 1227
activity—synthesis and evaluation of 1-methyl-4-substituted 3,5-pyrazolidinediones, 1090
activity—1,2,4-trisubstituted 5-imidazolones, 1740
activity—1,3,5-trisubstituted pyrazolines, 1948
—plasma levels, GLC microdetermination, 806
potential—synthesis and screening of 3-(3,-4-dimethoxyphenylethyl)-(4-oxothiazolin-2-yl substituted hydrazones, 960
Antidepressants, potential—synthesis and screening of cyclic benzylhydrazine congeners, 395
Antiepileptic agents—isolation and identification of 2-ethyl-2-methyl-3-hydroxysuccinimide as major human urinary metabolite of ethosuximide, 467
Antifungal activity—synthesis and evaluation of six *N*-substituted *N'*-cyano-*O*-(triorganostannyl)isoureas, 261
Antihemolytic activity—substituted benzylidenes against hypoosmotic hemolysis, relationship between monoamine oxidase inhibitory activity and anticonvulsant activity, 1124
Antihistamine maleate salts—effect of maleic acid in compendial UV absorption assays, 1604
Antihistaminic, antitussive, and analgesic drugs—retention times, high-pressure liquid chromatography, application to analysis of cough–cold mixtures, 766
Antihistaminic–adrenergic tablets and syrups—high-pressure liquid chromatographic analysis, 591
Antihypertensive agents—effects of prolonged administration, review, 1497
potential—synthesis and screening of 4-amino-6,7-dimethoxyisoquinoline, a structural isomer of amiquinsin hydrochloride, 149
Anti-infective spray-on bandages (neomycin sulfate and triclosan)—determination of *in vivo* effectiveness, guinea pigs, 1376
—formulation and *in vitro* evaluation of dry foams, 1483
Anti-inflammatory activity—evaluation of 38 2-(substituted amino)quinolizinium bromides, 1939
activity—*para*-substituted *N*-benzenesulfonyl derivatives of anthranilic acid, synthesis and screening, 615
agents—ibuprofen plasma levels correlated with biological activity, 784
Anti-inflammatory fanamate–cyclodextrin inclusion complexes—circular dichroism studies, 1168
Antileukemic agents, potential—synthesis and screening of phosphoramantadine derivatives, 1480
Antilipemic agents—effects of colestipol hydrochloride on absorption of aspirin, L-thyroxine, phenobarbital, cortisone, and sulfadiazine, rat, 1097
Antimalarial agents—discussion of common structural feature, 307
potential—synthesis and screening of bis[6-(2-phenylcinchoninic acid)] sulfone diethyl ester and sulfide and disulfide analogs, 156
potential—synthesis and screening of α-(2-piperidyl)- 2 - (1-adamantyl)-6,8-dichloro-4-quinolinemethanol hydrochloride and *N*-acetyl and *O*-acetyl derivatives, 1264
Antimicrobial activity—4-amidino-17α-methyl-4-aza-5α-androstan-17β-ol and 4-(β-guanidinoethyl)-17α-methyl- 4-aza-5α-androstan-17β-ol, 620
activity—correlated to hydrolytic stability of *N*-chlorinated piperidines, photoelectron spectra, 1387
activity—isothiocyanate derivatives synthesized and screened, 1801
agents—interaction of 8-hydroxyquinoline sulfate with components of tuberculin purified protein derivative, 1205
agents, new pyrazolium salts—polarographic study, 937
Antimitogenic agents, potential—synthesis and physicochemical properties of palladium (II) 2,6-diaminopyridine complex, 1469
Antineoplastic agents—radiolabeled lomustine, effect of three vehicles on distribution of radioactivity, intravenous administration, rabbits, 1718
alkaloids with N–O–O triangulation structure—binding of thalicarpine to calf thymus DNA, 474
Antiperoxidase activity—synthesis and evaluation of propylthiouracil derivatives and metabolites, 1383
Antipsychotic activity—gentianine screened, chemical constituents of Gentianaceae, 1341
agents—GLC identification and determination of phenothiazine drugs in urine samples from psychiatric patients, 389
Antiradiation agents, potential—synthesis and

screening of 2-alkoxyiminoalkylmercaptan derivatives, 1786
Antithyroid activity—synthesis and evaluation of propylthiouracil derivatives and metabolites, 1383
Antitubercular agents, potential—2-ethylpyridine derivatives tested, 475
Antituberculosis drugs—determination of isoniazid and metabolites in biological fluids, 1191
Antitumor activity—constituents of *A. elegantissima* screened, 1798
activity, pentacyclic alkaloid camptothecin—structure, synthesis, pharmacology, 163
activity—synthesis and screening of nitrogen mustard analog of 1,2-cyclohexeno-4-(β-diethylaminoethylamino)thiaxanthone, 1806
agents, potential—isolation, identification, and screening of zaluzanin C from *Z. robinsonii,* 1321
agents, potential—isolation and screening of active constituents from *Sarracenia flava,* 613
agents, potential—partial synthesis of harringtonine analogs, 1280
agents, potential—synthesis of benzoxazinoquinoline and naphthoxazinoquinoline derivatives, 1314
agents, potential—synthesis and cytotoxic activity of *O,O'*-bis(acrylyl)-α,ω-alkanediols, 1162
agents, potential—synthesis and screening of 4-[*p*-[bis(2-chloroethyl)amino]phenyl]butyramides, 1487
Antitussive, antihistaminic, and analgesic drugs—retention times, high-pressure liquid chromatography, application to analysis of cough–cold mixtures, 766
mixtures (acetaminophen, chlorpheniramine maleate, and dextromethorphan hydrobromide)—separation, analysis, 430
Antiviral activity—11 triterpenoid saponins containing acylated β-amyrin aglycone, structure evaluated, 471
agents, potential—synthesis and physicochemical properties of palladium (II) 2,6-diaminopyridine complex, 1469
Apocodeine—metabolic conversion to apomorphine and norapomorphine, rats, 161
Apomorphine and norapomorphine—urinary metabolites of apocodeine, rats, 161
Aporphine alkaloids (nonbasic)—isolated and identified from *L. tulipifera,* 1338
Arrhythmias, exertional—time-dependent effect of oral procainamide, 1958
Arya II, *P. bracteatum*—analysis of thebaine content, extraction method, 1331
Ascorbic acid—aerobic oxidation, effects of nonionic surfactants poloxalkol and polysorbate 80, kinetic parameters, 1240
—method for separation and analysis in combination with acetaminophen, phenylephrine hydrochloride, and diphenhydramine hydrochloride, 91
***Aspergillus cervinus* Massee** (Moniliaceae)—isolation and identification of terremutin and 3,6-dihydroxy-2,5-toluquinone, 1632
Aspergillus ochraceous—used for microbiological synthesis of L-dopa products from L-tyrosine derivatives, 544
Aspirin and salicylic acid—simultaneous GLC determination in plasma, 1754
—degradation in alkaline media, topochemical reactions, 755
derivatives, (1'-ethoxy)ethyl 2-acetoxybenzoate—synthesis and hydrolysis, 627
—effect on acetaminophen absorption, rat, 1367
in aqueous suspension—solubilizing effect by cetylpyridinium chloride, benzalkonium chloride, polysorbates 20 and 80, and dioctyl sodium sulfosuccinate above and below their CMC's, 559
—salicylic acid–adenosine interaction, possible mechanism of intensifying aspirin-induced GI blood loss, 966
—stability in liquid and semisolid bases, polyethylene glycol 400 diacetate and triethylene glycol diacetate, 1790
stability—in substituted and nonsubstituted polyhydric alcohols, effect of added water, 133
suspensions—effect of dimethylpolysiloxane vehicles on stability and dissolution, 1630
Atomic absorption—automated integration of nonflame signals, improvements in detection limits, 929
spectroscopy—determination of silicon in streptomycin, 1128
Automated analysis—dissolution rate testing, equipment described, applications discussed, 1931
—riboflavin in multivitamin preparations, 1138
Automated system—analytical microbiology, studies on precision and accuracy of photometric and volumetric measurements, 1463
2-Azabicyclo[2.2.2]octane acetylcholine analogs—synthesized and screened for cholinergic activity, 1559
4-Azasteroids—synthesis, antimicrobial activity of amidino- and guanidinoazaandrostanes, 620
Azathioprine and metabolites—field desorption mass spectra, compared to electron impact spectra, application to molecular weight determinations, 1370

B

Bacterial endotoxin—slide test as a micromethod of modified *Limulus* endotoxin test, 808
Bactericidal activity—aldehyde groups, relationship between pH and antibacterial activity of glutaraldehyde, 804
Barbiturate–acetaminophen in combination—analysis by differentiating nonaqueous titration, 89
Barbiturates—potentiometric titration using 3-methyl-2-oxazolidone as solvent, relative acid strengths determined, 1136
Barbituric acids, substituted decyl—synthesized and screened for antibacterial properties, 469
Behavior, maternal—effects of cyproterone acetate in mice, 152
Benzene–acetonitrile binary solvent system—used for determination of half-neutralization potential of acids, effect of dielectric constant, 696
Benzoates, ethyl, *para*-substituted—effect of cetrimonium bromide on base-catalyzed hydrolysis, Hammett considerations, 64
Benzocaine and homologs—surfactant (polyoxyethylene 24 monocetyl ether) effect on alkaline hydrolysis, solubility, and UV absorbance, 712
—release from various ointment bases, dialysis through cellulose membrane, 102
Benzodiazepines, clonazepam and flunitrazepam—electron-capture GLC determination in biological specimens, 520
1,4-Benzodiazepines, 3-oxy-substituted—water-soluble derivatives synthesized and tested for water solubility, stability, and pH, 1880
Benzofurans—from *R. aculeatus,* structure determination, 1623
Benzoic acid—adsorption on sulfamethazine, pH and citrate-ion effects, 956
—suppression of adsorption on sulfamethazine by polyvinylpyrrolidone, effect of contact time, 1788
—transfer entropy from pure liquid to aqueous solution, calculation of partial molal entropy, 576
Benzotriazepinones—synthesis of 3-substituted 7-chloro-5-phenyl-1,3,4-benzotriazepin-2-ones, evaluation of CNS activity, 838
Benzoxazinoquinoline derivatives—synthesized as possible antitumor agents, 1314
Benzoxazole/benzthiazole-2-thiones, 3-alkyl benzoate/benzhydrazide aminomethyl—synthesis, anticonvulsant activity and relationship to inhibition of NAD-dependent oxidations and monoamine oxidase, 401
Benzthiaxanthones, substituted—synthesized as possible schistosomicidal agents, 946
Benzylhydrazine congeners (cyclic)—synthesized and screened as antidepressants, structure–activity relationships, 395
Benzylpenicillin—TLC analysis as impurity in carbenicillin, 603
Betamethasone benzoate—topical gel preparation, colorimetric determination by Lewbart–Mattox method, 1771
Betulin and betulinic acid—isolated from *Sarracenia flava,* examined for antitumor activity, 613
Bile acids—general physical model described for active and passive transport of conjugated and unconjugated bile acids from nonmicellar solutions, 686
Bile salt–lecithin micelles—transport of cholesterol, influence of calcium ions, 1325
ratio—relationship to cholesterol solubility, model, 327
Bile salts—effect on partitioning and oral toxicity of decamethonium bromide, rats, 790
Bilirubin, photodecomposition—mechanism for riboflavin enhancement *in vitro,* 404
Binding, antineoplastic alkaloids to calf thymus DNA—radiolabeled thalicarpine, 474
—colestipol hydrochloride and various drugs *in vitro,* effects of ionic strength, pH, and competing ion, compared to cholestyramine, 1914
—comparison of disopyramide phosphate and quinidine sulfate to human plasma proteins, 1877
dicumarol to bovine serum albumin—kinetics determined using nonequilibrium partitioning technique, three-phase system, 234
drug–protein—fraction bound calculated from total drug, data interconversion and comparison, multiple classes of sites, 1423
—8-hydroxyquinoline to tuberculoprotein, nucleic acid, and polysaccharide (components of tuberculin purified protein derivative), 1205
parameters—evaluation of use of effective protein fraction in pharmacokinetic drug distribution models, 1698
—quinidine to a red blood cell hemolysate preparation, influence on protein binding of quinidine, 1267
sodium urate and methyl orange to human serum albumin—displaced by sodium salicylate, binding measured by continuous ultrafiltration, 249
sulfonamides and penicillins to bovine serum albumin—effect of structure, fluorescence probe technique, binding constants, 27
sulfonylureas to plasma proteins—studied using fluorescence probe technique, 570
Bioavailability—absorption of aminosalicylic acid and salts from commercial tablets, humans, 708
acetaminophen from polyethylene glycol suppositories—effect of vehicle dielectric properties, 44
—approximation of absolute drug bioavailability without comparison to parenteral dose for compounds exhibiting a perturbable renal clearance, 1812
—14 commercially available 50- and 100-mg products, correlations between urinary excretion and disintegration/dissolution characteristics attempted, 1693
—comparison of four different commercially available sodium aminosalicylate tablets, 1431
—digoxin, effect of concurrent antacid administration, 1641
—digoxin from digoxin–hydroquinone complex, 809
digoxin tablets and elixir—compared using radioimmunoassay technique, variable in technique reported, tablet bioavailability compared to dissolution rate, 1231
—digoxin triturations and compressed tablets

prepared by ball milling or muller milling, 339
—iodine from iodinated glycerol formulated as aqueous solution, elixir, and tablet, humans, 1323
ophthalmic—aceclidine analysis, rabbit eye, perfusion technique, corneal penetration, 633
—pentobarbital, application of intravenous clearance, 1114
—pH-dependent dissolution rate of nitrofurantoin from commercial suspensions, tablets, and capsules, 643
—tropicamide, polymer and pH effects on transcorneal biophasic availability and mydriatic response, 1582
—two crystal forms of sulfameter, human urinary excretion data, 861
Biological activity—correlated with ibuprofen plasma levels, 784
half-life—quinidine, rabbits, 1119
Biomaterials, methacrylate monomers—effects on respiratory and cardiovascular functions, anesthetized dog, 376
Biopharmaceutics—drug properties, formulation effects, absorption mechanisms and control, 995
Biophase distribution—quinidine, rabbits, 1119
Biotransformation—isosorbide dinitrate, excretion after oral administration, humans, 1147
—propylthiouracil, activity of metabolites, 1383
—radiolabeled hydroxyzine hydrochloride and methiodide, comparative studies on excretion, distribution, and metabolism, rats, 1527
rat—acetaminophen, acetaminophen–aspirin interaction, 1367
—urinary excretion of amitriptyline *N*-oxide in humans, 1690
***O,O'*-Bis(acrylyl)-α,ω-alkanediols**—synthesized as possible antitumor agents, cytotoxicity evaluated, 1162
4-[*p*-[Bis(2-chloroethyl)amino]phenyl]butyramides—synthesized and screened as potential antitumor agents, 1487
Bis(2-ethylhexyl) phthalate—GLC analysis in tissue and plasma, 1628
DL-1,2-Bis[5-(6)-methoxy-2-benzimidazolyl]-1,2-ethanediol—urinary metabolites isolated and identified, mice, 1312
Bis[6-(2-phenylcinchoninic acid)] sulfone diethyl ester and sulfide and disulfide analogs—synthesized and screened as potential antimalarial agents, 156
Bisulfite ion–pyrosulfite ion—equilibrium constants, complex formation with citrate ions, 865
Bleeding, gastric—effects of various drugs under varying experimental conditions, rats, 1812
Blending, powders—influence of attrition bar, particle size, prebiending, solvents, and use of silica on uniformity of aspirin–lactose blends, 370
β-Blocking drugs—electron-capture GLC determination of propranolol, oxprenolol, alprenolol, pronethalol, dichloroisoproterenol, practolol, sotalol, and several metabolites in biological fluids and tissues, 1885
Blood clotting time—used in instrumental method for determination of sodium heparin in aqueous solutions, instrumental method compared to USP method, 1455
platelet uptake of histamine, inhibition—structure–activity relationships, 15
Books
Acetylcholine: An Approach to the Molecular Mechanism of Action, 1648
Actualités de Dermopharmacologie, 1966
Advances in Biochemical Engineering 2, 312
Advances in Sleep Research, Volume I, 1648
Alcohol Intoxication and Withdrawal: Advances in Experimental Medicine and Biology, 1496
Aliphatic, Alicyclic, and Saturated Heterocyclic Chemistry (Parts I–III), 811
The Alkaloids, Volume 2, A Specialist Periodical Report, 311
The Alkaloids, Volume 3, A Specialist Periodical Report, 477
American Drug Index 1974, 1966
Analytical Profiles of Drug Substances, Volumes 1, 2, and 3, 1344
Angewandte Biopharmazie, 812
Aromatic and Heteroaromatic Chemistry, 994
Atherogenesis: Initiating Factors, Ciba Foundation Symposium 12, 312
The Biochemical Basis of Neuropharmacology, 1176
Biosynthesis of Acetate-derived Compounds, 1966
British Medical Bulletin: Catecholamines, 478
British Pharmaceutical Codex 1973, 478
British Pharmacopoeia 1973, 1176
Cancer: Experiments and Concepts, 312
Cannabis and Its Derivatives, 311
Carbohydrate Chemistry, Volume 6, 1176
Catalog of Teratogenic Agents, 1344
Chemically Induced Magnetic Polarization, 1966
Chromatography of Antibiotics, 1966
The Ciba Collection of Medical Illustrations, Volume 6, Kidneys, Ureters, and Urinary Bladder, 311
Community Survey on Standard Reference Material, 478
Contact Dermatitis, 2nd ed., 1176
Corneal Graft Failure, Ciba Foundation Symposium 15, 1176
CTFA Cosmetic Ingredient Dictionary 1973, 477
Current Concepts in the Pharmaceutical Sciences: Dosage Form Design and Bioavailability, 811
Drinks, Drugs, and Do-Gooders, 312
Drug Effects on Neuroendocrine Regulation, Progress in Brain Research Volume 39, 1176
Drugs and Society (Symposium), 312
Drugs in Current Use and New Drugs, 1974, 1966
Encyclopedia of Industrial Chemical Analysis, Volume 18, 1176
Experiments in the Pharmaceutical Biological Sciences, 311
Funktionelle Dermatologie, 1648
A Guide to Molecular Pharmacology–Toxicology, 1496
Haemopoietic Stem Cells, Ciba Foundation Symposium 13, 812
Hagers Handbuch der Pharmazeutischen Praxis: Vollstandige (Vierte) Neuausgabe, 1176
Handbook of Experimental Pharmacology, 1176
Hard Tissue Growth, Repair and Remineralization, Ciba Foundation Symposium 11, 312
Heroin and Behaviour, 812
The Human Lens—in Relation to Cataract, 1176
Identifizierung Von Arzneistoffen, 312
Immunopotentiation, Ciba Foundation Symposium 18, 1648
Index-Handbook of Ototoxic Agents 1966–1971, 312
Index Nominum 1973/74, 1176
Index of Reviews in Organic Chemistry, 1973 Supplement, 1648
Inorganic Chemistry of the Transition Elements, Volume 2, 1648
International Symposium on Histamine H_2-Receptor Antagonists, 1966
Law and Ethics of A.I.D. and Embryo Transfer, Ciba Foundation Symposium 17, 1648
Lithium: Its Role in Psychiatric Research and Treatment, 1176
Locomotion of Tissue Cells, Ciba Foundation Symposium 14, 812
Medical Care of Prisoners and Detainees, Ciba Foundation Symposium 16, 1176
Medical Management of Primary Hypertension, 812
Medical Research Systems in Europe, Ciba Foundation Symposium 21, 1176
Methods of Analysis of Anti-Epileptic Drugs, 1814
Microprobe Analysis, 1648
Microsomes and Drug Oxidations, 812
Modern Chemical Analysis and Instrumentation, 1344
Molecular Orbital Methods in Organic Chemistry—HMO and PMO, Volume 2, 1648
Opiate Addiction: Origins and Treatment, 1648
Organic Chemistry Experiments to Accompany (Monson and Shelton) Fundamentals of Organic Chemistry, 1648
Organophosphorus Chemistry, Volume 4, 477
Particulate Information, 312
Pharmacology: Drug Actions and Reactions, 1175
Pharmacology of Gastrointestinal Motility and Secretion, 1966
La Pharmacopée Sénégalaise Traditionelle, Plantes, Médicinales, et Toxiques, 1176
Pharmakokinetik, 812
Photochemistry, 1175
Principles of Immunology, 812
Progress in Medicinal Chemistry, 1344
Protides of the Biological Fluids, 21st Colloquium 1973, 1176
Radioactive Isotopes in Biological Research, 1966
Reference Values in Human Chemistry, 1496
Selective Toxicity, 1174
SI Units, 312
1974 Supplement to Evaluations of Drug Interactions, 1648
Synthetic Methods of Organic Chemistry, 812
Temporal Aspects of Therapeutics, 1814
Toxicology: Review and Prospect, 1648
Trypanosomiasis and Leishmaniasis with special reference to Chagas' disease, Ciba Foundation Symposium 20, 1176
The United States Dispensatory, 993
USAN 10 and the USP Dictionary of Drug Names, 1973 Supplement, 311
The *Vinca* Alkaloids: Botany, Chemistry, and Pharmacology, 1814
Youth and Drugs, Report of a WHO Study Group, 312
Boron trifluoride etherate–alcohol—used as reagent for convenient selective esterification of aromatic carboxylic acids with reactive groups, 1333
Bothrops jararaca venom peptides—effect on central pressor effects of angiotensins I and II, 511
Bovine serum albumin binding of dicumarol—reinvestigated using nonequilibrium partitioning technique, three-phase system, 234
Brain concentration, pentazocine—correlated with plasma concentration, rhesus monkey, 84
Bromazepam—electron-capture GLC analysis in blood, differential pulse polarographic analysis of major urinary metabolites, 1440
Bromthymol blue—ion-pair extraction of ethambutol and analysis, 1764
***n*-Butylboronic acid**—conversion of sorbitol to cyclic *n*-butylboronate ester, GLC analysis, 1601

C

Cactus alkaloids—isolation, identification of alkaloids from *Coryphantha calipensis* H. Bravo, 574
Cadmium—effect *in vivo* on glucose catabolism, normal and alloxan diabetic rats, radiorespirometry, single and multiple doses, 952
—effect of multiple doses on glucose metabolism, rat, 146
—effect on palmitic acid metabolism by rat liver homogenate, respirometry, 1492
—effect on sodium and potassium excretion and action of hydrochlorothiazide, rats, mechanism of action, 563
Caffeine, carisoprodol, and phenacetin tablets—quantitative near-IR determination of each component, TLC identification, 912
Calcium effect—histamine binding to plasma protein, mechanism proposed, 701

ions—enhancing effect on cholesterol transport from sodium taurocholate–lecithin micelles to oil phase, 1325
pantothenate in chewable multivitamin tablets—analysis, procedure using various analytical techniques, 265
Calcium–sodium subphase exchange—effects on phosphatidyl serine monolayers, 398
Camptothecin—structure elucidation, synthesis, pharmacology, 163
Cancer chemotherapy—role of deoxyribonuclease, effect of alkylating agent on activity, 625
Cannabidiol—stability in chloroform and ethanol, GLC, TLC, 970
Cannabinoids—silylation and GLC separation, 1872
***Cannabis sativa* L.**—pharmacological evaluation of marijuana aqueous extract and volatile oil, hexobarbital sleeping time and analgesia, mice, 962
root extracts—cardiac activity of hexane, chloroform, ethanol, water, and hydrochloric acid extracts, 1169
—silylation and GLC separation of cannabinoids, 1872
Cannibalism, drug induced—following administration of cyproterone acetate to pregnant mice, 152
Capsules, dissolution (sodium butabarbital)—comparison of USP, Levy beaker, and magnetic basket apparatuses, statistical analysis, 925
Carbamides of substituted piperidines—synthesis, relationship between anticonvulsant activity and inhibition of respiratory activity, 1227
Carbamoyl group hydrolysis—mechanism of salicylanilide *N*-methylcarbamate hydrolysis, 459
Carbenicillin—TLC analysis of penicillin G (benzylpenicillin) content, 603
Carbon tetrachloride—contribution to complex analysis, strength, methylbenzene complexes with chloranil, fluoranil, and tetrachlorophthalic anhydride, net atomic charge and bond polarizability theoretical results compared with experimental heats of complexation, 1514
—interaction with and contribution to chloranil, fluoranil, and tetrachlorophthalic anhydride complexes, theoretical interaction energies combined with cavity model, used to calculate theoretical heats of complexation, 1520
9-(4′-Carboxyanilino) - 8-chloro-2-methoxyacridine—synthesized, evaluated as potential fluorescence probe for drug–protein binding studies, 32
Carboxylic acid anhydrides and chlorides—colorimetric determination using 2-nitrophenylhydrazine, 252
(aromatic) with reactive groups—selective esterification using boron trifluoride etherate–alcohol, 1333
Cardenolides—isolated from *Acokanthera longiflora* Stapf., cytotoxicity, 462
Cardiac activity—hexane, chloroform, ethanol, water, and hydrochloric acid extracts of *Cannabis sativa* L. roots, 1169
stimulant activity—ethanol extracts of coelenterates, rat atria, 1332
stimulatory activity—constituents of *A. elegantissima* screened, 1798
Cardiotonic steroids—synthesis and biological activity of semisynthetic digitalis analogs, review, 1649
—synthesis of digitoxigenin analogs (14β-H, 14α-H, 14β-Cl, and acetates), inhibition of Na^+,K^+-adenosine triphosphatase, 1391
Cardiovascular activity—synthesis and screening of *N*-substituted hydroxylamines, 1951
Carisoprodol, phenacetin, and caffeine tablets—quantitative near-IR determination of each component, TLC identification, 912
Cataractogenicity—effect of substituted dibenzoxazepines on levels of reduced glutathione and potassium ions in lenses of rabbits *in vitro* and of rats *in vivo*, 854
Catechol-*O*-methyltransferase—effects of aromatic aldehydes, *O*-methylation of dopamine and norepinephrine *in vitro*, 1261
***Catharanthus* alkaloids**—isolation of ajmalicine, pericalline, tetrahydroalstonine, vindolinine, and ursolic acid from *C. trichophyllus* roots, cytotoxic activity, 1419
—isolation, structure identification of vincoline, 536
Cephalosporins and penicillins—colorimetric determination, 923
—transport mechanisms across everted rat gut, 1803
Cephalotaxine esters—partial synthesis, 1280
Cephalotaxus harringtonia alkaloid analogs—partial synthesis, screened for antitumor activity, 1280
Cephradine—colorimetric analysis, 923
Certified dyes—effect of excipients on color fading, method for evaluation, 1309
Cetrimide–dye (anionic) systems—interactions studied by phase separation techniques and microscopy, effects of added salts, 548
Cetrimonium bromide—effect on base-catalyzed hydrolysis of eight *para*-substituted ethyl benzoates, Hammett considerations, 64
Chain-length effect—alkyl *p*-aminobenzoate-induced narcosis in goldfish, solubility-limited diffusional model, equations, 691
—*in vitro* release of *p*-aminobenzoates from silicone matrix, theory, equations, 1639
Charge-transfer complexes—alkaloid spectrophotometric assay, 1853
Chlorambucil—synthesis and screening of related 4-[*p*-[bis(2-chloroethyl)amino]phenyl]butyramides as potential antitumor agents, 1487
Chloramine-T—titrimetric reagent for potentiometric determination of isoniazid, phenelzine, and dihydralazine, 1446
***N*-Chloramines**—photoelectron spectra, hydrolytic stability, and antimicrobial activity, correlations, 1387
Chloramphenicol—collaborative GLC analysis in 17 laboratories, 435
Chlordiazepoxide—permeation through polydimethylsiloxane membranes, effect of excipients and various additives, 1224
Chlorination—2,3-dimethyl-1,2,4-benzothiadiazine 1,1-dioxide in dimethylformamide yielding a C-chlorinated end-product, 1634
7-Chloro-1,3-dihydro-5- (2′-chlorophenyl)-2*H*-1,- 4-benzodiazepin-2-one—electron-capture GLC determination of human blood levels, 1943
7-Chloro-3,3a- dihydro-2-methyl- 2*H*,9*H*- isoxazolo(3,2-b)(1,3-benzoxazin-9-one diastereoisomers—NMR analysis, deuterated tris-(1,1,1,2,2,3,3-heptafluoro-7,7-dimethyl-4,6-octanedionato)europium III shift reagent, 1586
2-Chloroethanol—effects of γ-irradiation on formation in ethylene oxide-sterilized polyvinyl chloride, 802
1-(2-Chloroethyl) -3-(cyclohexyl-1-^{14}C)-1-nitrosourea (lomustine)—distribution of radioactivity, three vehicles compared, intravenous administration, rabbits, 1718
7-Chloro-4-nitrobenzofurazan—used as reagent for spectrophotofluorometric analysis of *N*,3,3 - trimethyl -1-phenyl-1-indanpropylamine hydrochloride, isolation and characterization of derivative, 78
7-Chloro-5-phenyl - 1,3,4-benzotriazepin-2-ones, 3-substituted—synthesis and evaluation of CNS activity, 838
Chlorothiazine–reserpine—high-pressure liquid chromatography analysis, 1762
Chlorphenesin carbamate—GLC analysis in human serum, 1094
Chlorpheniramine—GLC determination in human plasma, 1954
maleate, acetaminophen, and dextromethorphan hydrobromide mixtures—high-speed liquid chromatographic separation and UV analysis, 430
Chlorthalidone—spectrophotometric determination in biological fluids, 1065
Cholate—effect on cholesterol uptake, isolated rabbit intestine, new apparatus described and tested, CMC and permeability coefficients, 1703
Cholesterol—condensing effect in mixed monolayers, physical model, equations, π–*A* plots, 858
—determination of concentration dispersed in silicone rubber matrix, differential scanning calorimetry, 427
—effect of cholate concentration on uptake by isolated rabbit intestine, new apparatus described and tested, CMC and permeability coefficients, 1703
—quantitative GLC analysis in plasma, compared to colorimetric method, 781
solubility in model bile systems—relationship to solid-state (crystalline) properties and bile salt–lecithin ratio, implications in cholelithiasis, 327
transport—from bile salt–lecithin micelles into oil phase, enhancing effect of calcium ions, 1325
—transport of D-glucose in lecithin–dicetyl phosphate–cholesterol spherules, permeability and partition coefficients, 1428
Cholesterol-reducing agents—*in vitro* binding of various drugs to colestipol hydrochloride, 1914
Cholesteryl myristate and palmitate—differential scanning calorimetry of binary mixtures, phase diagrams, 795
Choline precursors—used to antagonize neuromuscular actions of hexamethonium without affecting hypotensive actions, 305
Cholinergic activity—2-azabicyclo[2.2.2]octane analogs of acetylcholine, 1559
Chrysotile—determination in talc USP, 268
Circular dichroism—analysis of cyclodextrin–fanamate inclusion complexes, 1168
Citrate ions—complex formation with bisulfite ions, 865
Clindamycin and related compounds—GLC determination of trace contaminants and impurities, 1597
2-palmitate—determination in human serum using GLC and GLC–mass spectroscopy, 360
Clofibrate-related hypolipemic drugs—*in vitro* serum albumin binding parameters determined using 2-(4′-hydroxybenzeneazo)benzoic acid, thyroxine displacement, relationship to hypolipemic activity, 203
Clonazepam—blood levels and urinary excretion in dogs and humans, 527
—electron-capture GLC determination in biological specimens, 520
CMC, polysorbates—determined using surface tension method, values compared to other techniques, 136
CNS activity—synthesis and evaluation of 1-(*N*-acetyl-substituted piperidino)-3-aryl carbamides, 1227
—synthesis and evaluation of 3-substituted 7-chloro - 5 - phenyl - 1,3,4-benzotriazepin - 2-ones, 838
—synthesis and screening of *N*-substituted hydroxylamines, 1951
—Schiff bases formed from 4,6-dichloro-5-pyrimidinecarboxaldehydes and substituted anilines, 449
Coacervate systems—halothane uptake by acacia–gelatin and gelatin–benzalkonium chloride systems and similar broken systems, 1941
Coacervation—tartrazine, amaranth, carmoisine, and erythrosine with alkyltrimethylammonium salts, interactions studied by phase separation techniques and microscopy, phase separation diagrams, possible mechanisms, 548
Coating processes—effects of hydraulic pressure and nozzle orifice size on delivery rates of sprayed materials, 1171
Cocaine—content of herbarium specimens, GLC, 1938
—definitive GLC identification, 1963
Coelenterates—cardiac stimulant action of ex-

tracts, rat atria, 1332
Colestipol hydrochloride—effects on aspirin, L-thyroxine, phenobarbital, cortisone, and sulfadiazine absorption, rat, 1097
—*in vitro* binding to various drugs, effects of ionic strength, pH, and competing ion, compared to cholestyramine, 1914
Collagen silk fibroin—structural models, conformation studies, and helix stability, similarity of sequential polypeptides, 313
Colorants, certified dyes and lakes—sterilization by ^{60}Co, determination of possible irradiation-induced degradation, 758
FD&C Blue No. 2, FD&C Yellow No. 5, and FD&C Yellow No. 6—rapid evaluation of effect of excipients on color fading, 1309
Colorimetry—analysis, cephalosporins and penicillins, 923
—analysis, epinephrine, reaction with thiosemicarbazide, 1301
—analysis, guanazole in plasma and blood, 347
—analysis, phenylpropanolamine hydrochloride in mixed formulations, 269
—analysis, salicylazosulfapyridine and three impurities after TLC separation, 1296
—analysis, total salicylates in urine, 630
—determination, betamethasone benzoate in topical gel preparation by Lewbart–Mattox method, 1771
—determination, carboxylic acid anhydrides and chlorides using 2-nitrophenylhydrazine, 252
—determination, isoniazid and metabolites in biological fluids, 1191
—determination of ethionamide using 2,3-dichloro-1,4-naphthoquinone, 1471
—determination, procaine hydrochloride, using *p*-dimethylaminocinnamaldehyde, 916
—spectrophotometric determination of pivampicillin hydrochloride, 1299
Column chromatography, ion exchange—analysis of homatropine methylbromide in complex pharmaceutical syrups, 599
—separation of *Legnephora moorei* constituents, 618
Comminution—review of theory, energy relationships, size distribution, rate, and time considerations, equipment, application to pharmaceutical solids, 813
Complexation, heats—absolute interaction energies for methylbenzene complexes with chloranil, fluoranil, and tetrachlorophthalic anhydride (net atomic charges and bond polarizabilities) compared to experimental heats of complexation in carbon tetrachloride, 1514
—theoretical calculation, chloranil, fluoranil, and tetrachlorophthalic anhydride complexes, gas phase interaction energies and cavity model, 1520
Complexes, charge transfer—alkaloid spectrophotometric assay, 1853
(dialkylpropionamides–prednisolone)—*in vitro* transfer as an indicator of *in vivo* absorption characteristics, 454
inclusion (cyclodextrin–fanamates)—stoichiometric ratio, stability constants, circular dichroism, 1168
—vanadium with iodochlorhydroxyquin, and diiodohydroxyquin, complexing properties investigated using electronic absorption spectra, 1866
formation—bisulfite–citrate ions, 865
formation, uranyl acetate and tetracycline—analysis of both antibiotic and uranyl ion, 1451
Compressibility of tablet formulations—effect of magnesium lauryl sulfate, compared to magnesium stearate, 289
Computer estimations, activation energies—integral approach to nonisothermal estimation, numerical integration and iterative nonlinear least-squares treatment, 777
Conspergents—effects on moisture permeability of cellulose films, 119
Contact angles—10 polar liquids against paraffin, polyethylene, and polytetrafluoroethylene, interfacial properties of polar liquids, 1533
Contamination—large-volume plastic and glass parenteral containers, 1610
Content uniformity—comparison of criteria, percentage of defectives compared to deviation of lot mean content from label claim and standard deviation of within lot unit content, computer simulations, 183
solid dosage forms—particle-size limit and particle-size distribution discussed, 1961
Continuous fluid flow system—design and evaluation of rotating filter–stationary basket dissolution test apparatus, 110
Contraceptives—rapid *in vitro* method for measuring ethynodiol diacetate release from solid silicone vaginal devices, 365
Coordination complexes—synthesis and physicochemical, antimitogenic, and antiviral properties of $PdCl_2$(2,6-diaminopyridine), effect on DNA synthesis, 1469
Corticosteroids (hydrocortisone sodium succinate and cortisone acetate), percutaneous absorption—effects of dimethyl sulfoxide and trimethylphosphine oxide, rat, 793
***Coryphantha calipensis* H. Bravo**—isolation, identification of alkaloids, 574
Cosmetic aerosols—product formulation components, manufacturing and packaging, testing, toxicity, and abuse, review, 1815
Cough–cold mixtures—analysis, high-pressure liquid chromatographic retention times of drug components, 766
Coumarin anticoagulants—comparative pharmacokinetics of warfarin, relationships between distribution, elimination, and activity, biological half-life, volume of distribution, 868
Coupling agents—evaluation of 1-ethoxycarbonyl-2-ethoxy-1,2-dihydroquinoline and dicyclohexylcarbodiimide for esters of aminophosphonic acids and carbobenzoxyamino acids, 1087
***Crataegus monogyna* L.** (Rosaceae)—antiarrhythmic effects of crude extracts of bark and leaves, 1936
Crystal forms, succinylsulfathiazole—preparation, characterization, and interconversion, 1103
Culture media for sterility testing—comparison between seven media divided into two systems, 180 cultures of bacteria, yeasts, and molds, 23
Curarimimetic activity—(+)-isotubocurarine, 1643
Cyanogen bromide—mechanism and stereochemistry of reaction with (+)-1-methyl-3-benzoyl-3-hydroxypiperidine, 298
***N'*-Cyano-*O*-(triorganostannyl)isoureas,** *N*-substituted—synthesis, IR spectra, antimicrobial activity, 261
Cyclodextrin–fanamate inclusion complexes—circular dichroism studies, 1168
1,2-Cyclohexeno-4-(β-diethylaminoethylamino)-thiaxanthone, nitrogen mustard analog—synthesized and screened for carcinostatic and antitumor activities, 1806
Cyclophosphamide—quantitative GLC determination in biological specimens, 1554
Cyproheptadine—isolation of metabolites from rat urine, identification of desmethylcyproheptadine-10,11-epoxide, metabolism pathways suggested, 1536
Cyproterone acetate—effects on maternal behavior in mice, cannibalism, 152
Cysteine oxidation—pH dependence of thiyl free radical formation, 880
reaction products with isothiocyanates—synthesized and screened for antimicrobial activity, 1801
Cytotoxicity—cardenolides, 462

D

***o,p'*-DDD** (mitotane)—aromatic hydroxylation and alkyl oxidation during metabolism, humans, detection and identification of metabolites, 1730
Decalin analogs of phenethylamines (ephedrine and amphetamine)—uptake and kinetics of 5-hydroxytryptamine by rabbit platelets, conformation effects, 1714
of phenethylamines—uptake and distribution of histamine by rabbit platelets, conformation effects, 1708
Decamethonium bromide—effect of bile salts on partitioning and oral toxicity, rats, 790
Decomposition—computer program for estimation of activation energy and preexponential factor of drug decomposition, 777
of solid dosage forms—review, degradation schemes, equations and rate constants, effect of moisture, 1
Decyloxybarbituric acid and decylthiobarbituric acid—synthesized and screened for antibacterial properties, 469
Degradation, aspirin—in alkaline media, topochemical reactions, 755
aspirin—in substituted and nonsubstituted polyhydric alcohols, effect of added water, 133
methaqualone—acid and basic media, isolation and identification of products, 1784
Dehydration—epitetracycline to epianhydrotetracycline kinetics in solution, activation energy, UV and visible spectrophotometry, 1901
Delivery rates, sprayed materials—effects of hydraulic pressure and nozzle orifice size, 1171
Density gradient centrifugation—determination of micellar properties of drugs, 981
Deoxyribonuclease—role in cancer chemotherapy, effect of *p*-di(2-chloroethyl)amino-L-phenylamine on activity, 625
Desmethylcyproheptadine-10,11-epoxide—identification as a metabolite of cyproheptadine in rat urine, isolation of other metabolites, 1536
Deuterium-labeled acetylcholine perchlorates—synthesis, 1620
Deuterium oxide—solvent for IR spectrophotometric analysis of penicillins, 211
Dextrates—browning in solid–solid mixtures containing dextroamphetamine sulfate, rate and variables, 1415
Dextroamphetamine sulfate—hydroxymethylfuraldimines as possible intermediates in Maillard reaction, 1635
Dextroamphetamine sulfate–dextrates—solid–solid mixtures, rate of browning, effects of temperature and concentration, 1415
Dextromethorphan hydrobromide, acetaminophen, and chlorpheniramine maleate mixtures—high-speed liquid chromatographic separation and UV analysis, 430
2,5-Diacetyl - 6 - hydroxybenzofuran—structure determination, 1623
Diagnostic radiopharmaceuticals—survey and review of development, selection, availability, and mechanism of action, 647
Dialkylpropionamides—effect on absorption of prednisolone, everted rat intestine, *in vitro* preparation as an indicator of absorption-enhancing characteristics of complex, 454
Dialysis technique, dynamic—used to determine histamine binding to plasma protein, 701
Dibenzo[*a,d*]cycloheptanes—hydrolysis rates compared to cycloheptanes, effect of 5-amino substituents, 1908
Dibenzoxazepines, substituted—effect on reduced glutathione and potassium-ion levels in rabbit and rat lenses, relationship to cataractogenicity, 854
Dicarbamates, medicinal—combined application of high-resolution chemical ionization and electron-impact mass spectrometry, 1959
Dichlorodifluoromethane—partition coefficient in six solvents, 532
***p*-Di(2-chloroethyl)amino-L-phenylamine**—effect on deoxyribonuclease activity, 625
2,3-Dichloro- 1,4- naphthoquinone—colorimetric determination of ethionamide, 1471
4,6-Dichloro- 5-pyrimidinecarboxaldehydes—reacted with substituted anilines to form Schiff bases, CNS depressant activity, 449

Dichlorotetrafluoroethane—partition coefficient in six solvents, 532
Dicumarol—reinvestigation of binding to bovine serum albumin, nonequilibrium partitioning technique, three-phase system, 234
Dielectric constant of nonaqueous binary solvent system—relationship to composition of polar component, equation, 81
constant—series of benzene–acetonitrile mixtures used to determine half-neutralization potential of acids, 696
properties of polyethylene glycols—effect on acetaminophen absorption from suppositories, 44
***p*-(2-Diethylaminoethoxy)-2′,6′-benzoxylidide**—synthesized as possible local anesthetics, 158
5,5-Diethyl - 2-ethoxytetrahydro - 4,6-pyrimidinedione—synthesis, structure determination, 1633
Difference spectrophotometry—analysis of drugs in dosage forms, pH selection, hydrolysis, and Schiff-base formation considered, examples, 1921
Differential pulse polarography—analysis, bromazepam urinary metabolites, 1440
pulse polarography—determination, lorazepam as urinary metabolite of 7-chloro-1,3-dihydro - 5-(2′-chlorophenyl) - 2*H*-1,4-benzodiazepin-2-one in humans, 1943
scanning calorimetry—analysis, progesterone and cholesterol dispersed in silicone rubber matrix, 427
scanning calorimetry—used to study phase transitions of binary mixtures of cholesteryl esters, phase diagrams, 795
Diffuse reflectance spectroscopy—monitoring rate of browning of dextrates–dextroamphetamine sulfate mixtures, 1415
Diffusion assay—microbiological assay of antibiotics, effects of prediffusion time, incubation temperature, density of inoculation, composition of medium, and thickness of agar on zone size, 1459
drugs from semisolids—exponential and monoexponential models evaluated using literature data, regression lines calculated, 351
(free) of nonelectrolytes in the absence of bulk flow—review, 479
layer—effects on permeation of phenylbutazone through polydimethylsiloxane, 1399
layer–membrane—physical model described for bile acid transport, equations, 686
—salicylic acid from ointment bases prepared by small-scale techniques, 1618
semisolids—evaluation of mathematical models, 1808
Digitalis—synthesis and biological activity of semisynthetic analogs, review, 1649
Digitoxigenin, 14β-H, 14α-H, and 14β-Cl, and acetate analogs—synthesis and inhibition of Na^+,K^+-adenosine triphosphatase, 1391
Digoxin—bioavailability in presence of antacids, 1641
—effects of ball milling and muller milling on dissolution and bioavailability from triturations and compressed tablets, 339
—rapidly dissolving digoxin–hydroquinone complex, bioavailability characteristics, 809
tablets and **elixir**—comparative bioavailability, variable in radioimmunoassay technique reported, tablet bioavailability compared to dissolution rate, 1231
variable absorption—estimated by pharmacological response intensities, dose–effect curves, ventricular rate slowing response–time curves, 411
Digoxin–lactose triturations—effect of simple blending, solvent deposition, and spreading by frictional pressure on dissolution rates, 117
5,6-Dihydro-2-*o*-hydroxyphenyl-4*H*-1,3,4-oxadiazine-5-ones, 4-substituted—synthesized as potential psychopharmacological drugs, 1336
Dihydropteroate synthetase—effectiveness of 2-amino - 4-hydroxy - 6-hydroxymethylpteridine pyrophosphate as substrate, effects of sulfa drugs and related compounds, 1474
3,6-Dihydroxy-2,5-toluquinone—isolation and identification from *A. cervinus,* 1632
Dilodohydroxyquin—complexing properties, electronic absorption spectra of vanadyl complexes, 1866
2,3-Dimercapto-1-propanol, reaction products with isothiocyanates—synthesized and screened for antimicrobial activity, 1801
***p*-Dimethylaminocinnamaldehyde**— colorimetric reagent for determination of procaine hydrochloride, 916
***p*-(2-Dimethylaminoethoxy)-2′,6′-benzoxylidide**—synthesized as possible local anesthetic, 158
4-Dimethylaminomethyl - 1-phenyl - 1-nonen-3-ones, substituted—synthesized as possible antitumor agents, physical properties, elimination reactions, 69
***N,N*-Dimethylaniline** derivatives—comparison between theoretical and experimental electric dipole moments, 230
2,3-Dimethyl-1,2,4-benzothiadiazine 1,1-dioxide—unusual chlorination in dimethylformamide yielding a C-chlorinated end-product, 1634
(−)-*N,N*-Dimethyl - 3,4-dimethoxy - β-methoxyphenethylamine [(−)-β-*O*-methylmacromerine]—isolation, identification from *Coryphantha calipensis* H. Bravo, 574
1,1-Dimethylhydrazine—utilized in novel synthesis of bifunctional acid-esters, 1155
1-(2,6-Dimethylphenoxy) - 2 - aminopropane—flame-ionization and electron-capture GLC analysis in human plasma, 1489
***N,N*-Dimethyl-*N′*-(*p*-phenoxyphenyl)sulfamide**—urinary excretion after oral administration, metabolic pathways, rat, dog, human, 539
Dimethylpolysiloxane—nicotine base permeation, compared to trifluoropropylmethylpolysiloxane, diffusivity and solubility characteristics, timed-release formulations considered, 1849
vehicles—effect on stability and dissolution of aspirin, 1630
Dimethyl sulfoxide—effects on percutaneous absorption of corticosteroids, rat, 793
—solvent for IR spectrophotometric analysis of penicillins, 211
Diphenhydramine hydrochloride—method for separation and analysis in combination with acetaminophen, phenylephrine hydrochloride, and ascorbic acid, 91
Diphenylhydantoin—microdetermination in serum and plasma, UV spectrophotometry, 1795
Di(1-phenylisopropyl)methylamine — identification in illicit methamphetamine, NMR, IR, and mass spectroscopy, 1575
Dipole moments, electric, *N,N*-dimethylaniline derivatives—comparison between theoretical and experimental values, 230
Discoloration — dextrates – dextroamphetamine sulfate solid–solid mixtures, rate of browning, effects of temperature and concentration, 1415
Discriminators—determined for comparison of spironolactone tablet dosage forms, 1248
Disintegrants, tablet—trapa starch compared to wheat, potato, and maize starch, 473
Disodium carbenicillin—TLC analysis of sodium penicillin G (sodium benzylpenicillin) content, 603
Disodium edetate dihydrate—determination in streptomycin, atomic absorption spectroscopy, 1131
Disopyramide and monodealkylated metabolite—protein binding and erythrocyte partitioning, equilibrium dialysis and ultrafiltration, Scatchard plots, 1684
phosphate—binding to human plasma proteins compared to quinidine sulfate, 1877
Dispersion methods—effects of ball milling and muller milling on dissolution and bioavailability of digoxin triturations and compressed tablets, 339
Dissolution—effects of spheronization process variables, 285
lithium carbonate capsules formulated with magnesium stearate—direct relationship between dissolution of magnesium and lithium, 770
—nitrofurantoin from commercial dosage forms, 643
—prodrug approach to increase rate of allopurinol dissolution, 798
profiles—log-normal powders, dissolution before critical time, cube-root law plot approximation, 344
profiles (pentobarbituric acid tablets and sodium butabarbital capsules)—comparison of USP, Levy beaker, and three different size magnetic basket apparatuses, statistical analysis, 925
rate determination—automated analysis system described, applications discussed, 1931
rate, digoxin–lactose and hydrocortisone–lactose triturations—effect of simple blending, solvent deposition, and spreading by frictional pressure, 117
rate—digoxin triturations and compressed tablets prepared by ball milling or muller milling, 339
rate—effect of ordered mixing, 1960
rate testing of perphenazine–amitriptyline tablets—automated fluorescence analysis of perphenazine, 1306
sodium salicylate and salicylic acid tablets—percentage of drug released *in vitro,* pH effect, 438
test apparatus—design and evaluation of a continuous fluid flow system, rotating filter–stationary basket, 110
5,5′-Dithiobis(2-nitrobenzoic acid)—reagent for colorimetric determination of cephalosporins and penicillins, 923
Diuretics—improved assay of chlorthalidone in biological fluids, 1065
D-Dopa—quantitative determination in levodopa samples, 1130
L-Dopa—microbiological synthesis, L-tyrosine derivatives incubated with *Aspergillus ochraceous* and *Gliocladium deliquescens,* isolation and identification of L-dopa products, 544
Dopamine—effects of 2-nitrobenzaldehyde and pyridine-4-carboxaldehyde on *O*-methylation *in vitro,* 1261
Dosage forms, aerosols—literature review of pharmaceutical and cosmetic aerosols, 1815
forms—comparison of 25- and 100-mg spironolactone tablets, humans, multivariate statistical analysis (hour-by-hour comparisons), 1248
forms—formulation and *in vitro* evaluation of anti-infective dry foams, 1483
regimens—equations for obtaining plasma level–time profiles in which dose and interval vary, 100
Dosing frequency—considerations relative to topically applied ophthalmic drugs, drop size, relevance to ophthalmic combination products discussed, 333
regimens—comparison of single-dose and multiple-dose administration of doxycycline, effects of urinary pH on excretion, half-lives, humans, 1256
Doxycycline—comparison of single-dose and multiple-dose regimens, effects of urine alkalinization on excretion, half-lives, humans, 1256
Drag-reducing agents—effects of temperature and sodium chloride on sodium carboxymethylcellulose and guar gum, 1164
Drop size—considerations relative to optimum size and frequency discussed, topically applied ophthalmic drugs, albino rabbits, 333
Drug administration—extent of gastric irritation and bleeding caused by aspirin, phenylbutazone, methyl salicylate, salicylic acid, and triamcinolone, powder and solution forms, effects of polyethylene glycol bases, rats, 1812

binding—colestipol hydrochloride and various drugs *in vitro*, effects of ionic strength, pH, and competing ion, compared to cholestyramine, 1914
bioavailability—approximation without comparison to parenteral dose, compounds exhibiting perturbable renal clearance, 1812
biotransformation—renal contribution, assessment of determination of true renal clearance values, 1342
complexes—*in vitro* transfer as an indicator of *in vivo* absorption characteristics, 454
concentration—influence on *in vitro* release of salicylic acid from ointment bases, 1779
delivery systems—albumin microspheres, vehicle for mercaptopurine delivery, 1646
dependence—preparation and evaluation of naltrexone zinc tannate as prolonged-action narcotic antagonist, 159
diffusion from semisolids—exponential and monoexponential models evaluated using literature data, regression lines calculated, 351
displacement from human serum albumin—measurement of sodium urate and methyl orange displacement by sodium salicylate using continuous ultrafiltration, 249
dissolution profiles—using continuous flow system, design and evaluation of rotating filter–stationary basket apparatus, equations developed, 110
distribution—pentobarbital, influence of body weight, 1114
distribution—pharmacokinetic models, evaluation of effective protein fraction, 1698
permeation—chlordiazepoxide through polydimethylsiloxane membranes, effect of excipients and various additives, 1224
regimens—equations for obtaining plasma level–time profiles in which dose and interval vary, 100
release, controlled—differentiation between partition-controlled and matrix-controlled release mechanisms, ethynodiol diacetate from silicone devices in polyethylene glycol 400 media, 515
release, controlled—method for measuring rapid *in vitro* release from polymer devices, ethynodiol diacetate from silicone polymers, 365
release from matrix tablets—experimental relationship between release and tablet shape, salicylic acid and ephedrine from stearyl alcohol, 732
release from matrix tablets—relationship between release and tablet shape, theory, equations, 725
release (methapyrilene, pentobarbital, salicylic acid) from hydroxypropyl cellulose–polyvinyl acetate films—diffusion-controlled matrix model, effects of polymer ratio and drug concentration on release kinetics, 1359
release—phenylpropanolamine hydrochloride release rate from wax matrix timed-release tablet, 1748
release rates—effects of systematic alteration of vehicle composition, solutions and suspensions, equations, 1276
release, salicylic acid from ointments—effects of drug particle size, temperature of fusion of the base, and milling process, 1774
Drug absorption—influence of polymers and pH on tropicamide bioavailability, 1582
theoretical models—bile acid transport at premicellar concentrations across diffusion layer–membrane, 686
(thiamine disulfide compounds)—effects of biosurfactants and synthetic surfactants, rats, 676
Drug–protein binding determination—microultrafiltration technique, plasma, 1364
—dicumarol and bovine serum albumin, kinetics determined using nonequilibrium partitioning technique, 234
—multiple classes of sites, determination of partial fraction bound, secondary sites, interconversion of data, 1423
—synthesis, evaluation of acridine derivatives as fluorescence probes, 32
Drug–receptor combinations—influence of physicochemical properties, 300
Drugs—analysis in dosage forms, difference spectrophotometry, pH selection, hydrolysis, and Schiff-base formation considered, examples, 1921
—effects of body and environmental temperature on physicochemical properties, absorption, distribution, and metabolism, review, 1345
powder blends—effects of processing variables on uniformity of aspirin–lactose blends, 370
water soluble, micelle free—effect of surfactants on intramuscular absorption rate, 580
Dyes, certified—effect of excipients on color fading, method for evaluation, 1309
color stability of coated tablets—effect of sunscreening agents on FD&C Blue No. 1, 1927
color stability of coated tablets—effect of sunscreening agents on FD&C Red No. 3, 129
FD&C and D&C—sterilization by ^{60}Co, 758
(tartrazine, amaranth, carmoisine, and erythrosine)—coacervation by alkyltrimethylammonium bromides, phase separation techniques and microscopy, effects of salts on cetrimide–dye systems, effects of surfactant concentration and chain length, dye concentration and structure, temperature, and total ionic strength on interaction, micelle formation, 548
water soluble—determination of sorption rates on soft gelatin capsules, 639

E

Edetate disodium dihydrate—determination in streptomycin, atomic absorption spectroscopy, 1131
Edetic acid—spectrophotometric titration in ophthalmic solutions, 1133
Editorials
Advice, Not Advocacy (October)
Bringing Drug Combinations into the Fold (May)
Compendia Unification Becomes a Reality (August)
Destructive Fallout (September)
Dr. Jekyll and Mr. Hyde (March)
Drugs Anonymous? (November)
Extremism in the Pursuit of Drug Abuse Prevention (July)
Industry's Last Opportunity (February)
On Being Our Brother's Keeper (April)
Open System in Name Only? (June)
Quantitative Formula Disclosure (December)
Rolling Out the '74 Model (January)
Electric dipole moments, *N,N*-dimethylaniline derivatives—comparison between theoretical and experimental values, 230
Electrokinetics—effect of acridines on electrophoretic mobility of *Streptococcus faecalis*, 48
Electronic parameters—comparison between theoretical and experimental electric dipole moments for *N,N*-dimethylaniline derivatives, 230
Electron spin resonance—monitoring, pH dependence of thiyl free radical formation from oxidation of cysteine, 880
Electropaperography—separation and identification of anthraquinone glycosides and aglycones, 1316
Electrophoresis—loss of mobility of aluminum hydroxide gel, effect of washing, elution of chloride ion, 635
Electrophoretic mobility, *Streptococcus faecalis*—effect of acridines, ζ-potential, 48
Elimination, drug and metabolite—effects of body and environmental temperature, 1345
warfarin—effect of plasma protein binding, pharmacokinetics, 805
Emulsions—influence of hydrophilic–lipophilic balance values of surfactants on ephedrine absorption and release from emulsified systems, 666
Encapsulation, micro—acacia-coated solid stearyl alcohol particles with gelatin solution, wall thickness, surface appearance, 280
Endotoxin test, modified *Limulus*—slide test as a micromethod, 808
Enicoflavine—spontaneous transformation into erythrocentaurin, gentiocrucine, and gentianine, 944
Enicostemma hyssopifolium—natural occurrence of erythrocentaurin and structurally related monoterpene alkaloids, 944
Enterohepatic cycling, digoxin—evidence suggesting new significance, 411
Entropy of transfer from pure liquid to aqueous solution—benzoic acid, calculation of partial molal entropy, 576
Environmental temperature—effect on drug pharmacokinetics, review, 1345
Enzymatic activity, stereospecific soluble esterase in rat, mouse, and guinea pig—*in vitro* hydrolysis of oxazepam succinate half-ester, 222
Enzyme inhibition—dihydropteroate synthetase by sulfa drugs and related compounds using 2-amino-4-hydroxy-6-hydroxymethylpteridine pyrophosphate as substrate, 1474
—effect of phospholipids (cephalin and egg lecithin) on malate dehydrogenase activity, 738
Ephedrine—effect of hydrophilic–lipophilic balance values of surfactants on absorption and release from emulsified system, oral administration, dogs, *in vivo–in vitro* correlations, 666
Epianhydrotetracycline—formation from epitetracycline, dehydration kinetics in solution, activation energy, UV and visible spectrophotometry, 1901
Epimerization kinetics and hydrolysis, pilocarpine—determination, pH-stat titrimetry and NMR spectroscopy, 716
Epinephrine—colorimetric assay, reaction with thiosemicarbazide, 1301
Epitetracycline—dehydration kinetics in solution, activation energy, UV and visible spectrophotometry, 1901
Equilibrium constants—bisulfite-ion–pyrosulfite-ion equilibrium, 865
dialysis—determination, binding of radiolabeled thalicarpine to calf thymus DNA, 474
Ergonovine maleate—GLC analysis, 584
—TLC separation and identification of diastereomers, 1141
Erythrocentaurin—isolation and identification from *Enicostemma hyssopifolium* and *Swertia lawii*, 944
Erythrocyte binding—quinidine to a red blood cell hemolysate preparation, binding parameters, 1267
human—hemolysis in water–monohydric alcohol solutions, 60
partitioning—disopyramide and monodealkylated metabolite, 1684
Erythromycin amides and esters—synthesis as tasteless derivatives, mouse CD_{50} bioassay and rat serum levels, 842
***Erythroxylum* species**—cocaine content of herbarium specimens, GLC, 1938
Escherichia coli—effect of lincomycin, compared to lincomycin effects on *Staph. aureus*, drug–bacteria reactions, generation curves, microbial kinetics, 1077
generation—inhibition by quinacrine, in Anton's medium, amino acid concentration effect on quinacrine inactivation, 894
generation—quantitative kinetic inhibition by sodium fusidate, broth constituents, broth pH, and inoculum size considerations, theory of bacteriostatic inhibition developed, 884
Esterase, stereospecific, in rats, mice, and guinea pigs—*in vitro* hydrolysis of oxazepam succinate half-ester, 222
Esterification—aromatic carboxylic acids bearing other reactive groups, boron trifluoride ether-

ate–alcohol reagent, 1333
Estrogens, synthetic—identification and determination in pharmaceuticals by high-speed, reversed-phase partition chromatography, 594
Ethambutol hydrochloride—analysis, ion-pair extraction and precipitation methods, 1764
Ethanol—effect on intestinal absorption of theophylline, rat small intestine, 829
Ethionamide—determination using 2,3-dichloro-1,4-naphthoquinone, 1471
Ethosuximide—isolation and identification of 2-ethyl-2-methyl-3-hydroxysuccinimide as human urinary metabolite, 467
(1′-Ethoxy)ethyl 2-acetoxybenzoate (aspirin derivative)—synthesis and hydrolysis, 627
Ethylene oxide, use as sterilant of polyvinyl chloride—effects of γ-irradiation on 2-chloroethanol formation, 802
2-Ethylisonicotinaldehyde thiosemicarbazone—tested for antitubercular activity, 475
2-Ethyl-2-methyl-3-hydroxysuccinimide—isolation and identification as major human urinary metabolite of ethosuximide, 467
2-Ethylpyridine derivatives—antitubercular activity determined, 475
Ethynodiol diacetate—release from silicone devices in polyethylene glycol 400 media, matrix- and partition-controlled release mechanisms, 515
—release from solid silicone vaginal devices, effect of concentration and solubility of drug, rapid *in vitro* method for measuring steady-state drug release flux, 365
Euparone (2,5-diacetyl-6-hydroxybenzofuran)—structure determination, 1623
Everninomicin complex—differential pulse polarographic analysis in fermentation broth, 641
Excretion, urinary—acetaminophen by the rat, rat–human metabolic patterns compared, 969
—comparison of single-dose and multiple-dose doxycycline regimens, effects of alkalinization of urine, half-lives, humans, 1256

F

Fagara zanthoxyloides (Rutaceae) alkaloids—confirmation of fagaronine structure, 1476
Fagaronine—structure confirmation, 1476
FD&C water-soluble dyes—determination of sorption rates on soft gelatin capsules, 639
Fermentation broths—differential pulse polarographic analysis of everninomicin complex, 641
Ferrocyphen—evaluation as internal indicator in nitrite titration for isoniazid analysis, 1303
Fibroblasts (3T6), β-aminopropionitrile treated—effects of sodium salicylate on metabolism, proliferation, collagen synthesis, and mucopolysaccharide synthesis, 1211
Field desorption mass spectra—azathioprine and metabolites, compared to electron impact spectra, application to molecular weight determination, 1370
Films, cellulose acetate phthalate polymer—water vapor permeation on hygroscopic solid surfaces, comparison of application methods and temperatures, 931
hydroxypropyl methylcellulose–ethylcellulose—effect of incorporating dispersed solid fillers (talcs and titanium dioxide) on moisture permeability coefficient, 119
insoluble monomolecular—surface activity of prostaglandins, 1540
monolayer—physical model proposed for condensing effect of cholesterol, 858
Flexure test—determination of tablet tensile strength, compared to diametral compression method, apparatus and equations, 933
Flunitrazepam—blood levels and urinary excretion in dogs, 527
—electron-capture GLC determination in biological specimens, 520
***N*-2-Fluorenylacetamide**—production of urinary bladder hyperplasia in mice, dose–response predictability, modification by sex, 1946
Fluorescamine—reagent in spectrophotofluorometric analysis of procainamide and sulfadiazine in presence of primary aliphatic amines, 1448
Fluorescence probe—8-anilino - 1 - naphthalenesulfonic acid, radioimmunoassay of triiodothyronine, 1214
potential—synthesis of acridine derivatives, evaluation in drug–protein binding studies, 32
—technique—used to study relationship between sulfonamide and penicillin structure and their binding to bovine serum albumin, 27
technique—used to study sulfonylurea binding to plasma proteins, 570
Fluorescence spectra—6-methoxyquinoline nucleus, quinine, and quinidine, pH dependence, 876
Fluorinated hydrocarbons—use of telemetry in evaluating toxicity of aerosol preparations, 1892
***dl*-2-(2-Fluoro-4-biphenylyl)propionic acid** (flurbiprofen)—GLC analysis in plasma, 567
Fluorocarbon aerosol propellants—effect of water vapor on sensitivity of electron-capture detector, GC analysis, 1776
—loss from various types of containers, effects of time, temperature, and concentration, mechanisms, 1614
—partition coefficients in six solvents, 532
Fluorometry—analysis, automated, perphenazine from perphenazine–amitriptyline tablets during dissolution studies, 1306
—analysis, D-dopa in levodopa samples, 1130
—determination, amphetamine, comparison of five methods, 1150
—determination, isoniazid and metabolites in biological fluids, 1191
—microdetermination of vitamin E, rat plasma, 1084
Fluorouracil—GLC analysis flash methylation using trimethylanilinium hydroxide, 1328
Fluphenazine and metabolites—isolated from rat and dog tissues, identified by mass spectrometry, synthesis, 1842
Flurazepam and major metabolites—fluorometric TLC analysis in blood, 1837
Flurbiprofen [*dl*-2-(2-fluoro-4-biphenylyl)propionic acid]—GLC analysis in plasma, 567
Formulation—development of stable sublingual nitroglycerin tablet, interaction of nitroglycerin with macromolecules, 1810
Free radicals in solution—pH dependence of thiyl free radical formation from oxidation of cysteine, electron spin resonance, 880

G

Gallstones and cholesterol-supersaturated bile in humans—implications of cholesterol solubility in model bile systems, solution rate and equilibrium considerations, 327
Gastric irritation and bleeding—effects of aspirin, phenylbutazone, methyl salicylate, salicylic acid, and triamcinolone, powder and solution forms, effects of polyethylene glycol bases, rats, 1812
GC—effect of water vapor on sensitivity of electron-capture detector during analysis of fluorocarbon aerosol propellants, 1776
Gelatin capsules, soft—determination of sorption rates of water-soluble dyes, 639
—interaction with acacia on stearyl alcohol particle surface, microencapsulation, wall thickness, surface appearance, 280
Gelatin–benzalkonium chloride system—halothane uptake, compared to similar broken system, 1941
Gels, aluminum hydroxide—effect of washing on physicochemical properties, loss of electrophoretic mobility, elution of chloride ion, 635
Gentianaceae—chemical constituents, antipsychotic activity of gentianine evaluated, 1341
—occurrence of xanthone-*O*-glucoside, phylogenetic significance, 1286
Gentianine—antipsychotic activity evaluated, 1341
GLC—analysis, bis(2-ethylhexyl) phthalate in tissue and plasma, 1628
—analysis, chloramphenicol, collaborative study in 17 laboratories, 435
—analysis, chlorphenesin carbamate in human serum, 1094
—analysis, chlorpheniramine in human plasma, 1954
—analysis, cholesterol in plasma, compared to colorimetric method, 781
—analysis, clindamycin and related compounds, determination of trace contaminants and impurities, 1597
—analysis, cocaine content of herbarium specimens of *Erythroxylum* species, 1938
—analysis, *C. sativa* constituents, 1872
—analysis, ergonovine maleate, 584
—analysis, fluorouracil, flash methylation using trimethylanilinium hydroxide, 1328
—analysis, flurbiprofen in plasma, 567
—analysis, γ-hydroxyphenylbutazone in plasma, 1751
—analysis, ibuprofen in human plasma, 219
—analysis, levodopa bulk, capsules, and tablets, 96
—analysis, medroxyprogesterone acetate in plasma, compared to radioimmunoassay technique, 420
—analysis, meperidine and other basic drugs, 306
—analysis, meprobamate in water, plasma, and urine, 834
—analysis, methadone in urine and tissues, 741
—analysis, papaverine in biological fluids, 1625
—analysis, phenylbutazone and oxyphenbutazone metabolite in plasma, 1234
—analysis, probenecid metabolites, rats, 1551
—analysis, simultaneous, salicylic acid and aspirin in plasma, 1754
—analysis, sorbitol as the cyclic *n*-butylboronate, 1601
—analysis, warfarin in human plasma, 1579
—analysis, warfarin in plasma, 1725
—cyclophosphamide and isophosphamide, quantitative determination in biological specimens, 1551
—detection of changes in vaginal odors, 36
—determination, clindamycin 2-palmitate in human serum, 360
—determination, enantiomers of α-[4-(1-oxo-2-isoindolinyl)phenyl]propionic acid, plasma levels, humans, 1072
—determination of propranolol, other β-blocking drugs, and metabolites in biological fluids and tissues, 1885
—determination, phenylbutazone and oxyphenbutazone in plasma and urine, 446
—determination, quinidine in plasma and whole blood, 1244
—determination of steady-state levels of amitriptyline and nortriptyline in human plasma, 296
—determination, theophylline in biological fluids, 1283
electron capture—analysis, bromazepam in blood, 1440
electron-capture detection—analysis, clonazepam and flunitrazepam in biological specimens, 520
electron capture—determination, 7-chloro-1,3-dihydro - 5 - (2′-chlorophenyl) - 2*H*-1,4-benzodiazepin-2-one in human blood samples, 1943
flame ionization and electron capture—analysis, 1-(2,6-dimethylphenoxy)-2-aminopropane in human plasma, 1489
—identification and determination, phenothiazine drugs in urine, psychiatric patients, 389
—identification, cocaine, 1963
—microdetermination, anticonvulsant plasma levels, 806
—monitoring of tetrahydrocannabinol stability,

1563
GLC–mass spectroscopy—determination, clindamycin 2-palmitate in human serum, 360
—identification of campesterol, stigmasterol, and sitosterol mixture from *Legnephora moorei*, 618
Gliocladium deliquescens—used for microbiological synthesis of L-dopa products from L-tyrosine derivatives, 544
Glucose catabolism, *in vivo*—effect of single and multiple doses of cadmium, normal and alloxan diabetic rats, radiorespirometry, 952
metabolism—effect of multiple doses of cadmium, rat, 146
—transport in lecithin–dicetyl phosphate–cholesterol spherules, permeability and partition coefficients, 1428
Glutaraldehyde—relationship between pH and antibacterial activity, 804
Glutathione, oxidized and reduced—modified fluorometric determination in tissue, 57
reduced—possible interaction with substituted dibenzoxazepines, significance to cataractogenicity, 854
Glycolysis—possible effect of multiple doses of cadmium on glucose metabolism, rat, 146
Goldfish turnover—chain-length effect of alkyl *p*-aminobenzoates, diffusion model, equations, 691
Granulations, lactose, starch, and water—used to determine effects of milling on granulation particle-size distribution, equations, 1395
milled—particle-size distributions, theory and equations, 1494
Guanazole in plasma and blood—colorimetric analysis, 347
Guanethidine—effects of prolonged antihypertensive therapy, literature review of acute and chronic studies, 1497
Guanylhydrazones—synthesis and biological activity, review, 1649
Guar gum—effects of temperature and sodium chloride on drag reduction, 1164

H

Half-lives, pharmacological, biophasic, and biological—estimation, quinidine, rabbits, 1119
Hallucinogens—synthesis of conformationally constrained analogs of mescaline, pharmacological data, 1379
Haloperidol—reaction with 5-(hydroxymethyl)-2-furfuraldehyde impurity in anhydrous lactose, 41
Halothane—uptake by acacia–gelatin and gelatin–benzalkonium chloride aggregated coacervate systems, uptake compared to broken coacervate systems, 1941
Hardness, tablets—effects of spheronization process variables, 285
Harringtonine alkaloid analogs—partial synthesis, screened for antitumor activity, 1280
Heat production—temperature profiles for six ultrasonic instruments during insonation, 114
Helenalin analogs—synthesized as possible antitumor agents, cytotoxicity evaluated, 1162
Hemolysis of human erythrocytes—water–monohydric alcohol solutions, 60
Hemolytic toxin, direct—isolation and partial purification from *Stoichactis helianthus* (sea anemone), 1478
Heparin—determination using instrumental method, compared to USP method, 1455
—kinetics of removal from circulation of minipig, 138
Hetacillin and ampicillin interconversion in aqueous solution—mechanism, effect of acetone concentration, determination by hydroxylamine assay, IR analysis, and ^{14}C-labeling, 1197
Hexadecyltrimethylammonium ion, adsorption—radioisotope technique for direct estimation at air–water interface, specific ion effects, 381
2,3,5,6,11,11b - Hexahydro-11,11b-dimethyl-14-indolizino(8,7-b)indole hydrochloride—intestinal motor effects studied in cats, dogs, and monkeys, 787
Hexamethonium—antagonism of neuromuscular actions by choline precursors without affecting hypotensive effects, 305
High-pressure liquid chromatography—analysis, cough–cold mixtures, retention times of various antihistaminic, antitussive, and analgesic drugs, 766
—analysis, progesterone injection, 1591
—analysis, reserpine–chlorothiazide mixture, 1762
High-speed liquid chromatography—analysis, riboflavin in commercial multivitamin preparations, compared by official method, 588
—analysis, sodium *o*-iodohippurate injection, 274
—separation, UV analysis, acetaminophen, chlorpheniramine maleate, and dextromethorphan hydrobromide mixtures, 430
High-speed, reversed-phase partition chromatography—identification and determination of synthetic estrogens in pharmaceuticals, 594
Histamine binding to plasma protein—calcium effect, mechanism proposed, dialysis and kinetic data, 701
uptake by rabbit blood platelets, inhibition—correlation between inhibitor activity and structure, 15
uptake inhibitors—conformationally rigid and semirigid inhibitors, decalin analogs of phenethylamines, uptake and distribution of histamine by rabbit platelets, 1708
uptake inhibitors—conformationally rigid inhibitors, decalin analogs of phenethylamines (ephedrine and amphetamine), uptake and kinetics of 5-hydroxytryptamine, 1714
Homatropine hydrobromide corneal absorption—effect of prebuffering and/or adding viscolizers and surfactant, rabbits, 721
Homatropine methylbromide—analysis in complex pharmaceutical syrups, ion-exchange separation and UV spectrophotometry, 599
Homogeneity of multicomponent powder mixtures—numerical calculation of homogeneity and degree of mixing, particle-size considerations, 408
Human serum albumin binding—displacement of sodium urate and methyl orange by sodium salicylate, measured using continuous ultrafiltration, 249
Hydralazine-^{14}C—plasma levels and urinary excretion in humans, spectrophotometric and inverse isotope dilution analysis in biological fluids, 225
Hydrazides—synthesis of phenylphosphono(thio)dihydrazides as potential anticancer agents, 1736
Hydrazine drugs—potentiometric determination of isoniazid, phenelzine, and dihydralazine, chloramine-T as titrimetric reagent, 1446
Hydrazones, 3-(3,4-dimethoxyphenylethyl)-4-oxothiazolin-2-yl substituted—synthesized and screened for anticonvulsant activity, 960
Hydrochlorothiazide—effects of prolonged antihypertensive therapy, literature review of acute and chronic studies, 1497
—effects of single and multiple doses of cadmium, rats, 563
Hydrocortisone ointment—stability, shelflife, polyethylene glycol base, 107
Hydrocortisone–lactose triturations—effect of simple blending, solvent deposition, and spreading by frictional pressure on dissolution rates, 117
Hydroflumethiazide—fluorometric TLC analysis in plasma and urine, 1793
Hydrogen bonding—spectroscopic data supporting lidocaine intraamide hydrogen bonding, *trans*-planar configuration, 1170
Hydrolysis—allopurinol prodrugs, synthesis, dissolution rates determined, 798
base catalyzed, *para*-substituted ethyl benzoates—effect of cetrimonium bromide, Hammett considerations, 64
—dibenzo[*a,d*]cycloheptenes, effect of 5-amino substituents, 1908
mechanisms—salicylanilide *N*-methylcarbamates, 459
—methaqualone, isolation and identification of degradation products, acid and basic media, 1784
—steroid oximes, mechanisms and products, 74
Hydrophilic–lipophilic balance values, surfactants—influence on ephedrine absorption and release from emulsified systems, oral administration, dogs, *in vivo–in vitro* availabilities correlated, 666
Hydroquinone–digoxin complex—dissolution, bioavailability characteristics, 809
2-(4′-Hydroxybenzeneazo)benzoic acid—used to determine serum albumin binding of clofibrate-related hypolipemic drugs, thyroxine displacement, 203
—used to measure L-thyroxine binding to serum albumins, 199
2-Hydroxy-4,5-dimethoxyphenethanolamine and methylenedioxy analog—synthesis and psychotropic activity, potential endogenous psychotogen, 1339
β-Hydroxyhomomethionine—preparation and separation of diastereomers, 1253
Hydroxylamines, *N*-substituted—synthesis and biological activity, 1951
Hydroxymethionine derivatives—synthesis, tested for resistance to *in vitro* destruction by rumen microorganisms, 751
β-Hydroxymethoxinine—preparation and separation of diastereomers, 1253
Hydroxymethylfuraldimines—possible intermediates in Maillard reaction, relationship to browning of dextroamphetamine sulfate, 1635
5-(Hydroxymethyl)-2-furfuraldehyde as impurity in anhydrous lactose—reactions with haloperidol, 41
γ-Hydroxyphenylbutazone—GLC determination in plasma, 1751
8-Hydroxyquinoline sulfate—interaction with components of tuberculin purified protein derivative, 1205
6α-Hydroxytetrahydrocannabinol—identification, metabolism of tetrahydrocannabinol by mouse hepatic microsomes, 1173
Hydroxyzine and methiodide, radiolabeled—comparative studies on distribution, excretion, and metabolism, rats, 1527
Hyperplasia, urinary bladder—effects of feeding *N*-2-fluorenylacetamide to BALB/c mice, dose–response predictability, modification by sex, 1946
Hypertensive activity, central—inhibition of effects of angiotensins I and II by saralasin acetate, 1109
Hypoglycemic activity—isolation and characterization of crystalline compound from *Xanthium strumarium*, 1166
Hypolipemic drugs related to clofibrate—*in vitro* serum albumin binding parameters, determined using 2-(4′-hydroxybenzeneazo)benzoic acid, thyroxine displacement, relationship to hypolipemic activity, 203
Hypotensive agents—antagonism of neuromuscular actions of hexamethonium by choline precursors, 305

I

Ibuprofen—GLC analysis in human plasma, 219
—plasma levels correlated with biological activity, 784
5-Imidazolones, 1,2,4-trisubstituted—synthesis, anticonvulsant activity and relationship to inhibition of monoamine oxidase, 1740
9-Iminoacridan monocation—tautomer form of singly protonated 9-aminoacridine cation, intercalation with double-helical DNA, 1272
Immunochemical properties—sequential polypeptides, review, 313
Indanethylamines, related to tryptamine—synthesis and pharmacological screening for monoamine oxidase inhibition and serotonin antagonism, 848

Indole alkaloids—microbial transformation of mitragynine by *Helminthosporum* sp., isolation and identification of metabolites, 1407
derivatives—intestinal motility effects of investigational indolazinoindole studied in cats, dogs, and monkeys, 787
Inhalation—radiolabeled 2,3,5-triiodobenzoic acid, normal and sulfur dioxide-exposed rats, residency time in lungs, 1759
Inhibition of histamine uptake by rabbit blood platelets—structure–activity relationships, 15
of NAD-dependent oxidations and monoamine oxidase—synthesis and evaluation of 3-alkyl benzoate/benzhydrazide aminomethyl benzoxazole/benzthiazole-2-thiones, 401
of respiratory activity, NAD-dependent oxidations—synthesis and evaluation of piperazinoquinazolones, 356
Insonation—temperature profiles of heat production for six ultrasonic instruments, 114
Insulin—increased yields by γ-irradiation of beef pancreas glands, 964
Interaction energies—methylbenzene complexes with chloranil, fluoranil, and tetrachlorophthalic anhydride, net atomic charges and bond polarizabilities, compared to experimental heats of complexation in carbon tetrachloride, 1514
(of complexation)—theoretical values combined with cavity model for carbon tetrachloride, used to calculate theoretical heats of complexation for chloranil, fluoranil, and tetrachlorophthalic anhydride complexes in solution, 1520
Interactions—theophylline–sodium benzoate complexation, studied by NMR, 1319
Interfacial tension—10 polar liquids against hexane and tetradecane, 1533
Intestinal motility—effects of indolazinoindole analgesic in cats, dogs, and monkeys, 787
Inverse isotope dilution—analysis, hydralazine in plasma and urine, 225
Iodine, organically bound—bioavailability from iodinated glycerol as aqueous solution, elixir, and tablet formulations, humans, 1323
Iodochlorhydroxyquin—complexing properties, electronic absorption spectra of vanadyl complexes, 1866
5-Iodocytosine—kinetics and mechanisms of solvolysis, 899
Ion-exchange chromatography—separation of fluorouracil from urine, 1328
liquid chromatography—separation of prostaglandins A_2 and B_2, comparison of two columns, 800
Ion-pair extraction—bromthymol blue–ethambutol complex, precipitation and analysis, 1764
Irradiation, gamma—effects on 2-chloroethanol formation in ethylene oxide-sterilized pol vinyl chloride, 802
—used to sterilize pharmaceutical colorants, 758
IR spectrophotometry—analysis, penicillins, deuterium oxide, deuterium chloride, or dimethyl sulfoxide solutions, 211
(near)—quantitative determination of components of carisoprodol, phenacetin, and caffeine tablets, 912
(±)-2-(*p*-Isobutylphenyl)propionic acid (ibuprofen)—GLC analysis in human plasma, 219
Isoniazid and metabolites—fluorometric and colorimetric procedures for determination in biological samples, 1191
powder, tablets, and syrup—comparative analysis by iodine, bromometric, nitrite, and nonaqueous titration techniques, effect of sugars in formulation, 1303
Isophosphamide—quantitative GLC determination in biological specimens, 1554
Isosorbide dinitrate, radiolabeled—biotransformation and excretion after oral administration, humans, 1147
Isoswertianolin—isolation, characterization from *S. purpurascens,* 1286
Isothiocyanate derivatives—synthesized and screened for antimicrobial activity, 1801
(+)-Isotubocurarine—preparation and curarimimetic activity, 1643

J

K

Ketones, unsaturated—synthesis and physical properties of substituted 4-dimethylaminomethyl-1-phenyl-1-nonen-3-ones possessing antitumor properties, 69
Kinetics, dehydration—epitetracycline in solution, 1901

L

β-Lactam antibiotics—transport mechanisms across everted rat gut, 1803
Lactose, anhydrous, containing 5-(hydroxymethyl)-2-furfuraldehyde as contaminant—reaction with haloperidol, 41
Laminaria saccharina—isolation and identification of free and bound sterols, 464
Lanolin and derivatives as ointment vehicles—influence of drug concentration on *in vitro* release of salicylic acid, 1779
Large-volume parenteral containers—particulate contamination, simulated handling conditions, 1610
Larrea divaricata—isolation and characterization of dihydroguaiaretic acid, norisoguaiacin, and 3′-demethoxyisoguaiacin, biological screening, 1905
Lathyrogens, β-aminopropionitrile—used to treat fibroblasts, effect of sodium salicylate on fibroblast metabolism, 1211
Laurotetanine—isolation and identification from *L. benzoin,* 1495
Lecithin spherules—transport of D-glucose in lecithin–dicetyl phosphate–cholesterol spherules, permeability and partition coefficients, 1428
Legnephora moorei Miers (Menispermaceae)—isolation and identification of dehydrocorydalmine, magnoflorine, laurifoline, stepharine, friedelin, campesterol, stigmasterol, and sitosterol, 618
Levodopa bulk, capsules, and tablets—GLC analysis, 3-methoxy-4-hydroxyphenylalanine detected in commercial products, 96
—enhanced optical rotation using cyclization, purity determination, 807
—microbiological synthesis of L-dopa from L-tyrosine derivatives, 544
—quantitative determination of D-dopa contaminant, 1130
Levothyroxine or liothyronine tablets—analysis, partition chromatography and triiodide spectrophotometry, 763
Lewbart–Mattox method—colorimetric determination of betamethasone benzoate in topical gel preparation, 1771
Lidocaine—spectroscopic data supporting intraamide hydrogen bonding, *trans*-planar configuration, 1170
Lignans from *L. divaricata*—isolation and characterization of phenolics, biological screening, 1905
***Limulus* endotoxin test**—slide test as a micromethod, 808
Lincomycin—comparison of action on *Staph. aureus* and *E. coli,* microbial kinetics, drug–bacteria reactions, generation curves, 1077
Lindera benzoin (L.) Blume (Lauraceae)—isolation and identification of laurotetanine, 1495
Liothyronine or levothyroxine tablets—analysis, partition chromatography and triiodide spectrophotometry, 763
Lipids, biological—differential scanning calorimetry of binary mixtures of cholesteryl esters, 795
Liquid chromatography, high pressure—analysis, reserpine–chlorothiazide mixture, 1762
—separation of prostaglandin A_2 and B_2, comparison of two columns, 800
***Liriodendron tulipifera* L.**—alkaloids identified in the heartwood, 1338
Literature review—pharmaceutical sciences 1973, 995
Lithium carbonate capsules formulated with magnesium stearate—direct relationship between dissolution of magnesium and lithium, 770
Log-normal distribution—applied to pore characteristics of tablets, analytical method developed, 774
Lomustine, radiolabeled—distribution of radioactivity, three vehicles tested, intravenous administration, rabbits, 1718
Lorazepam—synthesis of aminoacetyl derivatives, tested for water solubility, stability, and pH, 1880
—urinary metabolite of 7-chloro-1,3-dihydro-5-(2′-chlorophenyl) - 2*H*-1,4-benzodiazepin-2-one, determined by differential pulse polarography, 1943
Lubricant effect of magnesium lauryl sulfate in tableting—ejection force and compressibility parameters, compared to magnesium stearate, 289
Luffa operculata—pharmaceutical studies, 942
Lysergic acid derivatives—TLC separation and identification of diastereomers of D-ergonovine maleate, 1141

M

Magnesium carbonate (spray-dried agglomerated)—reduced acid-neutralizing velocity, model, equations, 1546
Magnesium lauryl sulfate—effect on ejection force and compressibility of four direct compression fillers and a wet granulation, compared to magnesium stearate, 289
Magnesium stearate as lubricant in lithium carbonate capsules—direct relationship between dissolution of magnesium and lithium, 770
Maillard reaction—hydroxymethylfuraldimines as possible intermediates, relationship to browning of dextroamphetamine sulfate, 1635
Malate dehydrogenase activity and stability—effect of phospholipids (cephalin and egg lecithin), substrate considerations, 738
Maleate salts of antihistamines—effect of maleic acid on compendial UV absorption assay, 1604
Maleic acid—effect on compendial UV absorption assay for antihistamine maleate salts, 1604
Mannich bases from styryl ketones—synthesis and physical properties of substituted 4-dimethylaminomethyl-1-phenyl-1-nonen-3-ones possessing antitumor properties, 69
Marijuana—cardiac activities of *Cannabis sativa* L. root extracts, 1169
—comparison of four vehicles and four routes of administration, hindlimb tonic extension, mice, 939
—metabolism of tetrahydrocannabinol by mouse hepatic microsomes, identification of 6α-hydroxytetrahydrocannabinol, 1173
—pharmacological evaluation of aqueous extract and volatile oil, hexobarbital sleeping time and analgesia, mice, 962
—physicochemical properties, solubility, and protein binding of tetrahydrocannabinol, 1056
Marine algae—isolation and identification of free and bound sterols, 464
Mass spectroscopy—comparison of field desorption and electron impact spectra, azathioprine and metabolites, application to molecular weight determinations, 1370
electron impact and high-resolution chemical ionization—application to medicinal dicarbamates, 1959
—fragmentation patterns of steroid sapogenins, 140
—identification, metabolites, of trifluoperazine, fluphenazine, prochlorperazine, and perphenazine, 1842
—medicinal pyrazolidinediones, fragmentation pathways, 1896
Medicinal plants—*C. monogyna,* crude extracts of leaves and bark screened for antiarrhythmic effects, 1936
—novel approach for selecting plants with CNS

activity, 457
Medium for sterility testing—two systems compared using 180 cultures of bacteria, yeasts, and molds, 23
Medroxyprogesterone acetate—GLC analysis in plasma, compared to radioimmunoassay technique, absorption in dogs after intramuscular administration, 420
Membrane diffusion—effect of vehicle polarity on flux from solutions and suspensions, systematic alteration of vehicle composition, equations, 1276
diffusion layer—physical model described for bile acid transport, equations, 686
permeation—review of models, passive diffusion, barrier effect, partition coefficients, 479
—physical model proposed for condensing effect of cholesterol in mixed monolayers, equations, $\pi - A$ plots, 858
polydimethylsiloxane and everted rat intestine—permeation of phenylbutazone, effect of pH and formulation excipients on permeation rate and coefficient, 671
polydimethylsiloxane—permeation of chlordiazepoxide, effect of excipients and various additives, 1224
polydimethylsiloxane—permeation of phenylbutazone, diffusion layer effects, 1399
Meperidine (and other basic drugs)—GLC analysis of plasma samples, 306
Meprobamate—GLC analysis in water, plasma, and urine, 834
Mercaptopurine and synthesis intermediates—oscillopolarographic study, 622
Mercurial compounds—antibacterial efficiency against *Staphylococcus aureus* and *Pseudomonas aeruginosa*, effect of sodium thioglycolate in nutrient medium, role of sulfhydryl group, 681
Mescaline—synthesis of conformationally constrained analogs, pharmacological data, 1379
Metabolism—β-aminopropionitrile-treated fibroblasts, effects of sodium salicylate, 1211
—cyproheptadine, identification of desmethylcyproheptadine-10,11-epoxide and other metabolites, rat urine, 1533
N,N-dimethyl-*N'*-(*p*-phenoxyphenyl)sulfamide—urinary products after oral administration, rat, dog, humans, 539
drug—effects of body and environmental temperature, 1345
drug—renal contribution to drug biotransformation, assessment of determination of true renal clearance values, 1342
fatty acid—effect of cadmium on palmitic acid metabolism by rat liver homogenate, 1492
—introduction of oxygen in biotransformations, major conjugation reactions, aspects in mutagenicity and carcinogenicity, review, 1177
—isosorbide dinitrate, humans, 1147
—1-methyl - 5-nitro - 2-(2'- pyrimidyl)imidazole, 293.
—mitotane in humans, aromatic hydroxylation and alkyl oxidation, detection and identification of metabolites, 1730
phenothiazines—isolation and identification of drug and metabolites from rat tissue, 1842
—probenecid, metabolites excreted in bile and urine of rats with and without renal pedicle ligation, GLC analysis, 1551
—radiolabeled hydroxyzine hydrochloride and methiodide, comparative study, rats, 1527
—urinary excretion of acetaminophen by the rat, suitability of the rat as an experimental animal, 969
—urinary excretion of amitriptyline *N*-oxide in humans, 1690
—urinary metabolites of DL-1,2-bis[5-(6)-methoxy-2-benzimidazolyl]-1,2-ethanediol isolated and identified, mice, 1312
Metal ions—automated integration of nonflame atomic absorption signals, improvements in detection limits for several metals, 929
Methacrylate monomers—effects on respiratory and cardiovascular functions, anesthetized dog, 376
Methadone in urine and tissues—UV and GLC analyses, 741
Methamphetamine—identification and synthesis of di(1-phenylisopropyl)methylamine as an impurity in illicit samples, 1575
Methaqualone and methaqualone hydrochloride tablets and capsules—nonaqueous titration, 1294
—hydrolytic degradation, acid and base hydrolysis, isolation and identification of degradation products, 1784
—synthesis of metabolite 2-methyl-3-(2-hydroxymethyl) - phenyl -4(3*H*) - quinazalone, 1627
Methionine analogs—preparation and separation of diastereomers of β-hydroxyhomomethionine and β-hydroxymethoxinine, 1253
substitutes—ruminant nutrition, stability of 31 nitrogen compounds compared to methionine, *in vitro* incubation with rumen microorganisms, 745
substitutes—ruminant nutrition, stability of nonnitrogenous compounds compared to methionine, *in vitro* incubation with rumen microorganisms, 751
Methodology—procainamide in plasma, comparison of spectrophotofluorometric, colorimetric, and GLC analyses, 1744
3-Methoxy -4- hydroxyphenylalanine—detected as impurity in commercial levodopa capsules and tablets, GLC, 96
Methoxypolyethylene glycols—aspirin stability, effect of added water, degradation rates of aspirin, 133
6-Methoxyquinoline nucleus—absorption and fluorescence spectra, pH dependence, 876
(+)-1-Methyl-3-benzoyl-3-hydroxypiperidine—mechanism and stereochemistry of reaction with cyanogen bromide, 298
Methylcellulose—effect as vehicle on ocular drug bioavailability of pilocarpine nitrate, rabbits, relationship to effect in humans, 1218
—vehicle effect on α-methyl-*p*-tyrosine reduction of brain norepinephrine, compared to polysorbate 80, 1637
Methyl *trans*-cinnamate—structure and reactivity of theobrominate and theophyllinate complexes, 1524
(−)-*N*-Methyl-3,4-dimethoxy - β-methoxyphenethylamine [(−)-β-*O*-methylnormacromerine]—isolation, identification from *Coryphantha calipensis* H. Bravo, 574
1-Methyl-4,4-disubstituted 3,5-pyrazolidinediones—synthesis, evaluation of anticonvulsant activity, 1090
Methyldopa—method for determination in pharmaceutical dosage forms, urine, plasma, and whole blood, electrochemical oxidation, tubular carbon electrode, compared to compendial and modified colorimetric procedures, 954
Methylene blue—antagonism of opioid lethality, mice, 451
2-Methyl - 3-(2-hydroxymethyl)phenyl - 4(3*H*)-quinazalone—methaqualone metabolite, synthesis, 1627
1-Methyl - 5-nitro-2- (2'-pyrimidyl)imidazole—metabolism, identification of 5-acetamido-1-methyl-2-(2'-pyrimidyl)imidazole as metabolite, 293
3-Methyl-2-oxazolidone—evaluated as a solvent for titration of barbiturates and sulfa drugs, determination of relative acid strengths, 1136
α-Methyl-*p*-tyrosine reduction of brain norepinephrine—vehicle effect, methylcellulose, polysorbate 80, 1637
Micellar properties of drugs—symposium, 972, 981, 988
Micelle aggregates of phenothiazines—determination of properties by light scattering, viscosity, conductivity, dialysis, and NMR spectroscopy, 988
and nonmicelle patterns of self-association, hydrophobic solutes of different molecular structures—consideration of monomer fraction, availability, and correct application of micellar hypothesis, 972
Microbial kinetics—effect of lincomycin on *Staph. aureus* and *E. coli*, drug–bacteria reactions, total and viable count methods, 1077
transformation—isolation and identification of two metabolites from *Helminthosporum* sp. transformation of mitragynine, 1407
Microbiology, automated analytical—determination of accuracy of photometric and volumetric measurements, 1463
—diffusion assay of antibiotics, influence of variations in technique studied using Cooper equation, 1459
—synthesis of L-dopa from L-tyrosine by microorganisms, 544
Microdetermination—diphenylhydantoin in serum and plasma, UV spectrophotometry, 1795
Microencapsulation—acacia-coated solid stearyl alcohol particles with gelatin solution, wall thickness, surface appearance, 280
Microorganisms, inhibition of *E. coli*—quinacrine in Anton's medium, amino acid concentration effect on quinacrine inactivation, 894
inhibition of *E. coli*—sodium fusidate, kinetics and mechanism, 884
Microspheres, albumin—vehicles for specific drug delivery systems, 1646
Milling—effects on dissolution and bioavailability of digoxin triturations and compressed tablets, 339
—effects on granulation particle-size distribution, equations, 1395
of pharmaceutical solids—review of theory, energy relationships, size distribution, rate, and time considerations, equipment, 813
Minipig—kinetics of heparin removal from circulation, suitability as test animal, 138
Mitotane—aromatic hydroxylation and alkyl oxidation during metabolism, humans, detection and identification of metabolites, 1730
Mitragynine—microbial transformation by *Helminthosporum* sp., isolation and identification of metabolites, 1407
Mixing and homogeneity of multicomponent powders—calculation of homogeneity and mixing indexes, particle-size considerations, 408
powder—frictional pressure, example of use of ordered mixing, 1960
Moisture effect—decomposition of solid dosage forms, review, 1
Molecular orbital calculations—γ-aminobutyric acid-like agents (hydrazinopropionic acid, taurine, homotaurine, and imidazoleacetic acid), relation to proposed pharmacophore, structure–activity relationships, 1435
structure—role in toxicity, group theory analysis of various substances, 1068
weight of drug micelles—determination from sedimentation data, 981
Monoamine oxidase inhibitors activity—substituted benzylidenes, relationship between antihemolytic and anticonvulsant activity, 1124
—substituted pyrazolines, synthesis, anticonvulsant activity, 1152
—synthesis and screening of indanethylamines, 848
—1,2,4-trisubstituted 5-imidazolones, 1740
Monolayers, phosphatidyl serine—effects of sodium–calcium and calcium–sodium subphase exchange, sodium–calcium competition, cation-exchange evidence, 398
Monomolecular films, insoluble—surface activity of four prostaglandins, 1540
—physical model proposed for condensing effect of cholesterol, 858
Monopoles–bond polarizabilities method—model interaction energy calculations of sweetness levels of 2-amino-4-nitrobenzenes, 1722
Mottling, surface of colored tablets—measurement, photographic technique and equipment, 126
Multivitamin preparations—automated analysis of riboflavin, compared to official method, 1138
tablets, chewable—analysis of calcium pantothenate, procedure using various analytical techniques, 265

Mutagenicity and carcinogenicity—implications of metabolically oxygenated compounds, review, 1177
Mydriatic drugs—influence of vehicle composition, 1582
Myrica cerifera L.—isolation and identification of three triterpenes and one flavonoid glycoside, 958
Myricadiol—isolation and identification from *Myrica cerifera* root bark, 958
Myricitrin—isolation and identification from *Myrica cerifera* root bark, 958

N

Naltrexone zinc tannate—prepared as prolonged-action narcotic antagonist, 159
Naphthoxazinoquinoline derivatives—synthesized as possible antitumor agents, 1314
Narcotic antagonists—preparation and evaluation of naltrexone zinc tannate, 159
Neuromuscular blocking activity—stereochemical requirements, preparation and curarimimetic activity of (+)-isotubocurarine, 1643
Neutralization rate of antacids—spray-dried products bound with gum arabic, gelatin, polyvinyl alcohol, carboxymethylcellulose, methylcellulose, and polyvinylpyrrolidone, model, equations, 1546
Nicotinamide adenine dinucleotide-dependent oxidation—inhibition by 1,3,5-trisubstituted pyrazolines, 1948
Nicotine base—permeation, comparison of dimethylpolysiloxane and trifluoropropylmethylpolysiloxane systems, timed-release formulation implications, diffusivity and solubility characteristics, 1849
Ninhydrin reagent—used to determine phenylpropanolamine hydrochloride in mixed formulations, 269
Nitrofurantoin—bioavailability of 14 commercially available 50- and 100-mg products, attempted *in vivo–in vitro* correlations, 1693
—pH-dependent dissolution rate from commercial dosage forms, 643
5-Nitro-2-furfurylidine *p*-sulfonyl- and *p*-sulfamoylbenzoylhydrazides—synthesis, antibacterial activity, 1485
Nitrogen mustard analog of 1,2-cyclohexeno-4-(β - diethylaminoethylamino)thiaxanthone—synthesis and screening for carcinostatic and antitumor activities, 1806
Nitrogenous bases, hydrochlorides—indirect nonaqueous titration, method compared to compendial methods, 1767
Nitrogen–phosphorus compounds—synthesis of hydrazides and thiosemicarbazides as potential anticancer agents, 1736
Nitrogen sources—methionine substitutes in ruminant nutrition, 31 compounds compared to methionine, *in vitro* incubation with rumen microorganisms, 745
Nitroglycerin inhalation aerosol—formulated, compared to sublingual tablets in humans, 907
—stable sublingual tablet, formulated with macromolecules, 1810
2-Nitrophenylhydrazine—colorimetric reagent for determination of carboxylic acid anhydrides and chlorides, 252
NMR spectroscopy—analysis, amantadine hydrochloride in soft gelatin capsules and syrups, 425
—analysis, 7-chloro-3,3a-dihydro-2-methyl-2*H*,9*H* - isoxazolo(3,2 - b)(1,3)benzoxazin-9-one diastereoisomers, 1586
—analysis, phenol and resorcinol in resorcinol–phenol–boric acid solution, 93
—analysis, theophylline–sodium benzoate complexation, mode of interaction, 1319
—assignment of additional protons in spectra of tetracyclines, 1144
—determination, pilocarpine epimerization kinetics, 716
—effect of solvent on spectra of penicillins, 143
—structure determination, silver sulfonamides, 948
Nonaqueous binary solvent systems—relationship between composition of polar component and dielectric constant, equation, 81
titration, indirect—hydrochlorides of nitrogenous bases, compared to compendial methods, 1767
Nonpolar phases—interfacial properties of 10 polar liquids against hexane, tetradecane, paraffin, polyethylene, and polytetrafluoroethylene, interfacial tension or contact angle measured, work-of-adhesion values calculated, 1533
Norapomorphine and apomorphine—urinary metabolites of apocodeine, rats, 161
Norepinephrine—effects of 2-nitrobenzaldehyde and pyridine-4-carboxaldehyde on *O*-methylation *in vitro*, 1261
reduction by α-methyl-*p*-tyrosine—vehicle effect, methylcellulose, polysorbate 80, 1637
Norswertianolin—isolation, identification from *S. purpurascens*, 1286
Nortriptyline—GLC determination in plasma, 296
Nucleic acids—intercalative interactions, valence tautomerism of singly protonated 9-aminoacridine, 1272
Nutrition, ruminant—31 nitrogen compounds examined to circumvent rumen microbial amino acid deamination, 745
—stability of nonnitrogenous compounds compared to methionine, *in vitro* incubation with rumen microorganisms, effect of rumen microbial amino acid deamination, 751

O

Odors, vaginal—method and GLC assay technique for evaluating odor changes, suppository induced, 36
Ointment bases—comparison rate of release of benzocaine, dialysis through cellulose membrane, 1402
bases for ophthalmic use—formulation of semisolid oleaginous, water-free bases, physical properties and pilocarpine hydrochloride release, 443
bases—influence of drug concentration on *in vitro* release of salicylic acid, 1779
—effect of small-scale preparation techniques on salicylic acid diffusion, petrolatum bases with and without surfactant and water-in-oil emulsion base, 1618
—evaluation of mathematical models used to describe drug diffusion, 351
hydrocortisone—stability, shelflife, polyethylene glycol base, 107
salicylic acid—effects of drug particle size, temperature of fusion of the base, and milling process on drug release, 1774
Oleaginous semisolids—evaluated for use as ophthalmic ointment bases, physical properties and pilocarpine hydrochloride release, 443
Ophthalmic (corneal) absorption of homatropine hydrobromide and tropicamide—effect of prebuffering and/or adding viscolizers and surfactant, rabbits, 721
drugs, aceclidine—bioavailability, corneal penetration, rabbit eye, perfusion technique, analysis, 633
drugs—polymer and pH effects on transcorneal biophasic availability and mydriatic response of tropicamide, 1582
drugs, topically applied—drop size and initial dosing frequency problems, relevance to ophthalmic combination products discussed, 333
formulations—stable pilocarpine hydrochloride solution without added buffers, 276
ointment bases—formulation of semisolid oleaginous, water-free bases, physical properties and pilocarpine hydrochloride release, 443
vehicle viscosity—effect on ocular drug bioavailability, pilocarpine nitrate in methylcellulose, rabbits, relationship to effect in humans, 1218
Opioids, lethal doses—protection by thiazine dyes, 451
Optical rotation, levodopa—enhanced using cyclization, purity determination, 807
Oscillopolarography—mercaptopurine and synthesis intermediates, using commercial oscilloscope and adapter circuit, 622
Oxadiazines—synthesis of 4-substituted 5,6-dihydro - 2 - *o* - hydroxyphenyl - 4*H* - 1,3,4 - oxadiazine-5-ones, 1336
1,3,4-Oxadiazoles, 2,5-disubstituted—synthesis, inhibition of NAD-dependent and NAD-independent oxidations, relationship to anticonvulsant activity, 872
Oxazepam succinate half-ester—*in vitro* hydrolysis by stereospecific soluble esterase from rats, mice, and guinea pigs, 222
—synthesis of aminoacetyl derivatives, tested for water solubility, stability, and pH, 1880
Oxidation—ascorbic acid in presence of nonionic surfactants, above and below CMC, 1240
electrochemical—use of tubular carbon electrode for determination of methyldopa in pharmaceutical dosage forms, urine, plasma, and whole blood, 954
of pyruvate, citrate, DL-isocitrate, β-hydroxybutyrate, α-ketoglutarate, NADH, and succinate—effect of piperazinoquinazolones, 356
Oximes, steroid—hydrolysis mechanisms and products, effects of ester substituent and ring B modifications, 74
α-[4-(1-Oxo-2-isoindolinyl)phenyl]propionic acid—GLC determination of plasma levels of enantiomers, 1072
Oxygenation in drug metabolism—role in biotransformations, major conjugation reactions, aspects in mutagenicity and carcinogenicity, review, 1177
Oxyphenbutazone—GLC determination in plasma and urine, compared to UV method, 446
—mass spectrum, fragmentation pathways, mechanisms, 1896
metabolite and phenylbutazone—GLC analysis in plasma, 1234

P

Palladium (II) coordination compound—synthesis and physicochemical, antimitogenic, and antiviral properties of $PdCl_2$(2,6-diaminopyridine), 1469
Palmitic acid—effect of cadmium on metabolism by rat liver homogenate, respirometry, 1492
Palytoxin—pharmacological studies as antitumor agent, 257
Pantothenate, calcium, in chewable multivitamin tablets—analysis, procedure using various analytical techniques, 265
Papaver bracteatum Lindl—thebaine content of Arya II population, extraction method, 1331
Papaverine—GLC determination in biological fluids, 1625
Parenteral containers, large volume—particulate contamination, simulated handling conditions, 1610
Particle dissolution—log-normally distributed powders, dissolution before critical time, cube-root law plot approximation, 344
size distribution—effects of milling on granulations, equations, 1395
size—distributions in milled granulations and powders, theory and equations, 1494
size—requirements related to content uniformity of solid dosage forms, particle-size limit compared to particle-size distribution, 1961
Partition coefficients—determined for fluorocarbon aerosol propellants, six solvents, 532
—lecithin–dicetyl phosphate–cholesterol liposome dispersions, model transport studies, 1428
Partitioning—effect of bile salts on decamethonium bromide in water–*n*-octanol system, 790
Pediatric formulations, potential—synthesis and bioactivity of erythromycin amide and ester derivatives, 842
Penicillin G (sodium)—TLC analysis as impurity in disodium carbenicillin, 603
Penicillins and cephalosporins—colorimetric de-

termination, 923
—effect of solvents on NMR spectra, 143
—IR spectrophotometric analysis in deuterium oxide, deuterium chloride, or dimethyl sulfoxide, 211
—relationship between structure and binding to bovine serum albumin, fluorescence probe technique, binding constants, 27
Pentazocine—pharmacokinetics, correlation between plasma and brain concentrations, rhesus monkey, 84
Pentobarbital—pharmacokinetics after intravenous and oral administration, volume of distribution, 1114
Pentylenetetrazol, radiolabeled (10-^{14}C)—improvements in synthesis, 637
Peptides—synthesis, structure, and biological properties of sequential polypeptides, 313
—synthesized containing terminal α-aminobenzylphosphonic acid in aqueous and nonaqueous media, 1087
Pericalline—isolation and identification from *C. trichophyllus* roots, cytotoxic activity, 1419
Permeability—effect of cholate concentration on cholesterol uptake by isolated rabbit intestine, new apparatus described and tested, 1703
—lecithin–dicetyl phosphate–cholesterol liposome dispersions, model transport studies, 1428
Permeation—chlordiazepoxide through polydimethylsiloxane membranes, effect of excipients and various additives, 1224
drug—ethynodiol diacetate from silicone devices in polyethylene glycol 400 media, differentiation between partition- and matrix-controlled release mechanisms, 515
drug—ethynodiol diacetate through solid silicone matrix, rapid *in vitro* method for measuring steady-state drug release flux, 365
drug—phenylbutazone through polydimethylsiloxane, diffusion layer effects, 1399
membrane—review of models, passive diffusion, barrier effect, partition coefficients, 479
(moisture) of cellulose films—effect of incorporating dispersed solid fillers (talcs and titanium dioxide), 119
—phenylbutazone through polydimethylsiloxane and everted rat intestine, effect of pH and formulation excipients, 671
water vapor—polymer films applied to solid surfaces, effects of temperature and application method, 931
Perphenazine and metabolites—isolated from rat tissue, identified by mass spectrometry, synthesis, 1842
from perphenazine–amitriptyline tablets—automated fluorescence analysis in dissolution studies, 1306
Pharmaceutical aerosols—product formulation components, manufacturing and packaging, testing, toxicity, and abuse, review, 1815
sciences—1973 literature review of pharmaceutics, 995
technology—mechanical size reduction of solids (milling), review, 813
Pharmacokinetic models—effective protein fraction, barbiturate binding, evaluation of use, equations, 1698
parameters—one- and two-compartment open model, plasma level–time profiles in which dose and interval vary, equations, 100
profiles—clonazepam in dogs and humans, flunitrazepam in dogs, 527
Pharmacokinetics—effects of body and environmental temperature on human physiological changes and physicochemical properties, absorption, distribution, and metabolism of drugs, review, 1345
—estimation of pharmacological, biophasic, and biological half-lives of quinidine, rabbits, pharmacological response intensities, ECG monitoring, 1119
—heparin removal from circulation of minipig, 138
—literature review, 995
—pentazocine, correlation between plasma and brain concentrations, rhesus monkey, 84
—pentobarbital after intravenous and oral administration, volume of distribution, 1114
—warfarin distribution, elimination, and activity, 868
Pharmacological response intensities—monitored by ECG, estimation of pharmacological, biophasic, and biological half-lives of quinidine, rabbits, 1119
screening—extracts of *Luffa operculata* screened for activity, 942
Phase transitions—binary mixtures of cholesteryl myristate and palmitate studied by differential scanning calorimetry, 795
Phenscetin, carisoprodol, and caffeine tablets—quantitative near-IR determination of each component, TLC identification, 912
Phenethylamine derivatives—synthesis and psychotropic activity of 2-hydroxy-4,5-dimethoxyphenethanolamine, role in schizophrenia, 1339
decalin analogs—conformationally rigid and semirigid inhibitors of amine uptake by rabbit platelets, uptake and distribution of histamine, 1708
decalin analogs—conformationally rigid inhibitors of amine uptake by rabbit platelets, uptake and kinetics of 5-hydroxytryptamine, 1714
Phenol and resorcinol in resorcinol–phenol–boric acid solution—analysis, bromination technique and NMR spectroscopy, 93
Phenothiazines—identification and determination in urine of psychiatric patients, GLC, 389
—micellar aggregation properties determined by light scattering, viscosity, conductivity, dialysis, and NMR spectroscopy, 988
(trifluoperazine, fluphenazine, prochlorperazine, perphenazine)—isolation of drugs and metabolites in rat tissue, identification by mass spectrometry, synthesis, 1842
Phenylbutazone and its metabolite oxyphenbutazone—GLC analysis in plasma, 1234
—diffusion layer effects on permeation through polydimethylsiloxane, 1399
—GLC determination in plasma and urine, compared to UV method, 446
—mass spectrum, fragmentation pathways, mechanisms, 1896
metabolites—GLC determination of γ-hydroxyphenylbutazone in plasma, 1751
—permeation through polydimethylsiloxane and everted rat intestine, effect of pH and formulation excipients, 671
Phenylephrine hydrochloride—method for separation and analysis in combination with acetaminophen, diphenhydramine hydrochloride, and ascorbic acid, 91
Phenylethanol—effect on *Pseudomonas aeruginosa,* alone and in combination with polymyxin, 54
Phenylpropanolamine hydrochloride formulations—colorimetric analysis, ninhydrin reagent, 269
hydrochloride—release rate from wax matrix timed-release tablet, mechanisms, 1748
with chlorpheniramine or pheniramine/pyrilamine dosage forms—high-pressure liquid chromatographic analysis, 591
α-Phenylpropionic acid derivatives—GLC determination of plasma levels of enantiomers, 1072
Phosphatidyl serine monolayers—effects of sodium–calcium and calcium–sodium subphase exchange, sodium–calcium competition, cation-exchange evidence, 398
Phospholipids (cephalin and egg lecithin)—effect on malate dehydrogenase activity and stability, substrate considerations, 738
Phosphonic acid monoesters, α-aminobenzyl—synthesis, 965
Phosphoramantadine derivatives—synthesized and screened for antileukemic properties, 1480
Phosphorus–nitrogen compounds—synthesis and screening of phosphoramantadine derivatives for antileukemic properties, 1480
—synthesis of hydrazides and thiosemicarbazides as potential anticancer agents, 1736
Photodecomposition, bilirubin—mechanism of enhanced rates under aerobic conditions with riboflavin *in vitro,* 404
pH–rate profiles—5-iodocytosine solvolysis, 899
Phthalate plasticizers, bis(2-ethylhexyl)—GLC analysis in tissues and plasma, 1628
Physical pharmacy—dissolution, solubility, permeability, complexation, surface phenomena, 995
Phytological screening—novel approach for selecting biologically active plants, CNS activity, 457
Pilocarpine hydrochloride—formulation in stable solution without added buffers, 276
—kinetics of hydroxide-ion-catalyzed hydrolysis and epimerization, pH-stat titrimetry and NMR spectroscopy, 716
Piperazine-substituted phenothiazines—isolation and identification of rat tissue metabolites, ethylenediamine derivatives, 1842
Piperazinoquinazolones—synthesis, anticonvulsant activity, and relationship to NAD-dependent oxidations, 356
Piper boehmeriifolium (Wall)—phytochemical investigation of stems, isolation and identification of piperine, 1160
Piperidine carbamides—synthesis, relationship between anticonvulsant activity and inhibition of respiratory activity, 1227
N-chlorinated—photoelectron spectra, hydrolytic stability, and antimicrobial activity, correlations, 1387
α-(2-Piperidyl)-2-(1-adamantyl)-6,8-dichloro-4-quinolinemethanol hydrochloride and *N*-acetyl and *O*-acetyl derivatives—synthesized and screened as potential antimalarial agents, 1264
Piper sylvaticum (Roxb.)—phytochemical investigation of roots and stems, isolation and identification of piperine, piperlonguminine, *N*-isobutyldeca-*trans*-2-*trans*-4-dienamide, and β-sitosterol, 1160
Pivampicillin hydrochloride—spectrophotometric determination, 1299
Plasma concentration pentazocine—correlated with brain concentration, rhesus monkey, 84
levels—hydralazine-^{14}C after oral administration, humans, 225
protein binding—microultrafiltration technique, 1364
protein binding of histamine—calcium effect, mechanism proposed, dialysis and kinetic data, 701
proteins—binding of sulfonylureas, fluorescence probe technique, 570
Plasticizers, bis(2-ethylhexyl) phthalate—GLC analysis in tissue and plasma, 1628
Plastic parenteral containers—particulate contamination, simulated handling conditions, 1610
Polar liquids—interfacial properties against nonpolar phases, interfacial tension and contact angles measured, work-of-adhesion values calculated, 1533
Polarography—analysis, sulfur dioxide in starch and pharmaceutical materials, 1458
differential pulse—analysis, everninomicin complex in fermentation broth, 641
—reduction of new antimicrobial pyrazolium salts, effects of 3-aryl substituents on $E_{1/2}$ values, 937
Poloxalkol—effects on aerobic oxidation of ascorbic acid, kinetic parameters, 1240
Polydimethylsiloxane—determination of dispersed progesterone and cholesterol, differential scanning calorimetry, 427
—permeation of phenylbutazone, diffusion layer effects, 1399
Polyethylene glycol base—stability, shelflife of hydrocortisone ointment, 107
400 diacetate—stability of aspirin at three temperatures, 1790
dielectric properties—effect on acetaminophen

absorption from suppositories, 44
Polymer films, hydroxypropyl cellulose–polyvinyl acetate—effects of polymer ratio and drug concentration on drug (methapyrilene, pentobarbital, salicylic acid) release kinetics, 1359
silicone rubber matrix—determination of dispersed progestrone and cholesterol, differential scanning calorimetry, 427
Polymerization, suspension—formation of timed-release dosage forms, polystyrene beads containing acetaminophen, 440
Polymorphism—bioavailability of two crystal forms of sulfameter, human urinary excretion data, 861
—preparation, characterization, and interconversion of succinylsulfathiazole crystal forms, kinetics, Arrhenius plots, 1103
Polymorphs—sulfanilamide, physical properties, 145
Polymyxin—effect on *Pseudomonas aeruginosa* alone and in combination with phenylethanol, 54
Polypeptides, sequential—review of synthesis, structure, optical integrity, enzyme models, immunochemical properties, 313
Polysorbate 80—effects on aerobic oxidation of ascorbic acid, kinetic parameters, 1240
Polysorbates—CMC determination using surface tension method, values compared to other techniques, 136
—effects on intramuscular absorption rate, water-soluble, micelle-free drugs, plasma levels, rat, 580
Polystyrene beads—prepared by suspension polymerization for timed release of drugs (acetaminophen), 440
Polyvinyl chloride, ethylene oxide sterilized—effects of γ-irradiation on formation of 2-chloroethanol, 802
Polyvinylpyrrolidone—suppression of benzoic acid adsorption on sulfamethazine, effect of contact time, 1788
Pore diameters, tablets—analytical method using log-normal distribution, advantages discussed, 774
Potassium, excretion—effect of single and multiple doses of cadmium, 563
ions—effect of substituted dibenzoxazepines, rabbit and rat lenses, 854
Potentiometric titration—isoniazid, phenelzine, and dihydralazine, chloramine-T as titrimetric reagent, 1446
Powder mixing—frictional pressure, example of use of ordered mixing, 1960
Powder mixtures, multicomponent—numerical calculation of homogeneity and degree of mixing, particle-size considerations, 408
Powders, compressed—tensile strength determined by transverse compression of squares and disks and direct tensile stressing, incompatibility as end-point on shear yield locus, internal cohesion estimated, Warren–Springs-type equation, relevance to yield locus, 605
dissolution—log-normal distribution profile, dissolution before critical time, cube-root law plot approximation, 344
—particle-size distributions, theory and equations, 1494
Preservatives—evaluation of phenylethanol and polymyxin, alone and in combination, against *Pseudomonas aeruginosa,* 54
—spectrophotometric titration of edetic acid in ophthalmic solutions, 1133
Pressor responses—angiotensins I and II effects inhibited by pentapeptide and nonapeptide from *Bothrops jararaca* venom, anesthetized cat, 511
Probenecid—metabolites, excretion in bile and urine of rats with and without renal pedicle ligation, GLC analysis, 1551
Procainamide—comparison of spectrophotofluorometric, colorimetric, and GLC analysis, plasma samples, 1744
hydrochloride—analysis, acetic anhydride interference in nonaqueous titration, improved procedure compared with alternative nitrite and compendial titrations, 919
hydrochloride—nonaqueous titration, interference of acetic anhydride, 1645
oral—time-dependent effect, patients with exertional arrhythmias, 1958
—spectrophotofluorometric analysis with fluorescamine in presence of primary aliphatic amines, 1448
Procaine hydrochloride—colorimetric analysis using *p*-dimethylaminocinnamaldehyde, 916
Prochlorperazine and metabolites—isolated from rat tissue, identified by mass spectrometry, synthesis, 1842
Prodrugs—synthesis and physicochemical characteristics of 1-ethoxyethyl-4-allopurinyl ether and 2-tetrahydropyranyl-4-allopurinyl ether, enhanced rate of allopurinol dissolution, 798
Progesterone—determination of concentration dispersed in silicone rubber matrix, four dispersed polymorphic forms observed, heat of mixing and solubility at drug melting point determined, differential scanning calorimetry, 427
injection—analysis by high-pressure liquid chromatography, 1591
L-Proline—isolation and characterization from *Cannabis sativa* L. (Indian variant), 154
Propellants, aerosols—evaluation of telemetry for determining toxicity, 1892
(fluorocarbon aerosol)—effect of water vapor on sensitivity of electron-capture detector, GC analysis, 1776
(fluorocarbon aerosol)—loss from various containers as a function of time, temperature, and initial concentration, relationship to analysis, 1614
Propranolol and two metabolites—GLC determination in biological fluids and tissues, 1885
Propylthiouracil derivatives and metabolites—synthesis and antiperoxidase activity, 1383
Prostaglandins—separation of PGA_2 and PGB_2 by ion-exchange liquid chromatography, comparison of two columns, 800
E_2, $F_{2\alpha}$, A_1, and B_1—surface activity in presence of insoluble monomolecular films, π–A isotherms, biological implications, 1540
Protecting groups, peptide synthesis—review, 313
Protein binding—comparison of binding sites of disopyramide phosphate and quinidine sulfate, human plasma proteins, 1877
—disopyramide and monodealkylated metabolite, equilibrium dialysis and ultrafiltration, Scatchard plots, 1684
plasma—effect on elimination of warfarin, pharmacokinetics, 805
plasma—microultrafiltration technique, 1364
—tetrahydrocannabinol, 1056
Protein–drug interaction—interpretation through fraction bound and relative contribution of secondary sites, interconversion of binding data, multiple classes of sites, 1423
Protein fractions, effective—evaluation of use in developing drug distribution pharmacokinetic models, 1698
Pseudoephedrine with chlorpheniramine dosage forms—high-pressure liquid chromatographic analysis, 591
Pseudomonas aeruginosa, phenylethanol sensitive and resistant or polymyxin sensitive and resistant—effect of subinhibitory concentrations of phenylethanol and polymyxin, evaluation of components and combination, 54
Psychopharmacological agents, potential—synthesis of 4-substituted 5,6-dihydro-2-*o*-hydroxyphenyl-4*H*-1,3,4-oxadiazine-5-ones, 1336
Pyrazolidinediones, medicinal—mass spectra, fragmentation pathways, mechanisms, 1896
1-methyl-4,4-disubstituted—synthesis, evaluation of anticonvulsant activity, 1090
Pyrazolines 1,3,5-trisubstituted—synthesis, anticonvulsant activity, relationship to NAD-dependent oxidations, 1948
—synthesis, relationship between anticonvulsant and monoamine oxidase inhibitory properties, 1152
2-Pyrazolinium perchlorates—synthesized and screened as antidepressants, structure–activity relationships, 395
Pyrazolium salts, antimicrobial—polarographic reduction of 1,2,5-trimethyl-3-arylpyrazolium perchlorates, structure–activity correlations, 937
Pyridyl-1,2,3-thiadiazoles and **selenadiazoles**—synthesized and screened as antibacterial agents, 628
Pyrimidine derivatives—synthesis of 5,5-diethyl-2-ethoxytetrahydro-4,6-pyrimidinedione, structure determination, 1633
Pyrrolidone carboxylic acid-L-lysyl-L-tryptophyl-L-alanyl-L-proline and pyrrolididone carboxylic acid - L - tryptophy - L - prolyl - L - arginyl - L - prolyl - L - glutaminyl - L - isoleucyl - L - prolyl - L - proline—studied as inhibitors of central pressor effects of angiotensinc I and II, anesthetized cat, 511
Pyruvate, α-ketoglutarate, and succinate oxidation, inhibition—effects of substituted thiosemicarbazides and cyclized oxadiazoles, 872

Q

Quantum mechanics—comparison between theoretical and experimental electric dipole moments for *N,N*-dimethylaniline derivatives, 230
Quinacrine—inhibition of *E. coli* generation in Anton's medium, amino acid concentration effect on quinacrine inactivation, 894
Quinazolines—synthesis, evaluated as xanthine oxidase inhibitors, 1158
Quinidine—absorption and fluorescence spectra, pH dependence, 876
—binding to a red blood cell hemolysate preparation, influence on protein binding of quinidine, binding parameters, 1267
—estimation of pharmacological, biophasic, and biological half-lives, rabbits, pharmacological response intensities, ECG monitoring, 1119
—GLC determination of plasma and whole blood 1244
sulfate—binding to human plasma proteins compared to disopyramide phosphate, 1877
Quinine—absorption and fluorescence spectra, pH dependence, 876
Quinolinemethanols, α-(2-piperidyl) analog and *N*-acetyl and *O*-acetyl derivatives—synthesized and screened as potential antimalarial agents, 1264
Quinolizinium bromides, 2-(substituted amino)—synthesis and anti-inflammatory evaluation, 1939
3-Quinuclidinol hydrochloride—analysis, biological fluids, ophthalmic bioavailability of aceclidine, corneal penetration, 633

R

Radiation, gamma—effect on intestinal absorption of sulfanilamide, rats, 645
—effect on yield of insulin from beef pancreas glands, 964
Radioimmunoassay—analysis, digoxin blood levels, variable in technique reported, 1231
—8-anilino-1-naphthalenesulfonic acid as fluorescent probe in analysis of triiodothyronine, 1214
Radiolabeled compounds—improved synthesis of pentylenetetrazol-10-^{14}C, 637
Radiolabeling—used to measure hexadecyltrimethylammonium-ion absorption at air–water interface, 381
Radiopharmaceuticals—pharmaceutical aspects, 995
—survey and review of development, selection, availability, and mechanism of action as diagnostic and therapeutic agents, 647
Radioprotective activity—2-alkoxyiminoalkylmercaptan derivatives synthesized and screened, 1786
Radiorespirometry—determination of effect of single and multiple doses of cadmium on glu-

cose catabolism, normal and alloxan diabetic rats, 952
Receptors, digitalis—model proposed, structure–activity relationships of digitalis-like compounds, review, 1649
sweet taste—studied using model interaction energy calculations, 1722
sites—influence of physicochemical properties on interaction with drugs, 300
Renal metabolism—contribution to drug biotransformation, true renal clearance values, 1342
Reproducibility—automated system for analytical microbiology, precision and accuracy of photometric and volumetric measurements evaluated, 1463
Reserpine—effects of prolonged antihypertensive therapy, literature review of acute and chronic studies, 1497
Reserpine–chlorothiazide—high-pressure liquid chromatography analysis, 1762
Resorcinol and phenol in resorcinol–phenol–boric acid solution—analysis, bromination technique and NMR spectroscopy, 93
Respiratory activity—synthesis and evaluation of carbamides as inhibitors, 1227
Review articles
Camptothecin, 163
Effects of Prolonged Administration of Certain Antihypertensive Agents, 1497
Mass Transport Phenomena and Models: Theoretical Concepts, 479
Metabolically Oxygenated Compounds: Formation, Conjugation, and Possible Biological Implications, 1177
Milling of Pharmaceutical Solids, 813
Pharmaceutical and Cosmetic Aerosols, 1815
Pharmaceutical Sciences—1973: Literature Review of Pharmaceutics, 995
Pharmacokinetics and Temperature, 1345
Stability of Solids and Solid Dosage Forms, 1
Survey of Radiopharmaceuticals and Their Current Status, 647
Synthesis and Biological Activity of Semisynthetic Digitalis Analogs, 1649
Synthesis, Structure, and Biological Properties of Sequential Polypeptides, 313
Riboflavin—automated analysis, multivitamin preparations, compared to official method, 1138
—enhancement of bilirubin photodecomposition *in vitro*, mechanism, 404
—high-speed liquid chromatographic analysis in commercial multivitamin preparations, compared to official method, 588
Ruscus aculeatus L. constituents—structure determination of euparone, 1623

S

Salicylanilide *N*-methylcarbamates—mechanisms of hydrolysis, 459
Salicylates, total—modified colorimetric method for assay in urine, 630
Salicylazosulfapyridine bulk and tablets—chromatographic–colorimetric analysis, partial characterization of three impurities, 1296
—quantitative TLC analysis, compared to literature spectrophotometric method, 1290
Salicylic acid and aspirin—simultaneous GLC determination in plasma, 1754
and sodium salicylate tablets—*in vitro* drug release compared, pH effect, 438
—diffusion from bases, effect of small-scale ointment preparation techniques, 1618
—interaction with adenosine and adenosine triphosphate, related to mechanism of intensifying aspirin-induced GI blood loss, 966
release from ointments—effects of drug particle size, temperature of fusion of the base, and milling process, 1774
Sapogenins, steroid—mass spectra and fragmentation patterns, 140
1-Sar-8-ala-angiotensin II (saralasin acetate)—inhibitor of central hypertensive activity of angiotensins I and II, 1109
Saralasin acetate (1-sar-8-ala-angiotensin II)—inhibitor of central hypertensive activity of angiotensins I and II, intravenous and intraventricular administration, cats, 1109
Sarracenia flava—chloroform and aqueous extracts examined for antitumor activity, 613
Scanning agents—survey and review of radiopharmaceuticals, 647
Schiff bases—prepared from 4,6-dichloro-5-pyrimidinecarboxaldehydes and substituted anilines, CNS depressant activity, 449
Schistosomicidal agents, potential—synthesis of substituted benzthiaxanthones, 946
Schizophrenia—synthesis and psychotropic activity of 2-hydroxy-4,5-dimethoxyphenethanolamine, a potential endogenous psychotogen, 1339
Screening biologically active plants—novel approach for selection using literature and assigned criteria, 457
Scyphozoan—ethanol extract, cardiac stimulant activity, rat atria, 1332
Sea anemone—isolation and partial purification of toxin with direct hemolytic activity, 1478
—separation of constituents, screened for antitumor activity and cardiac stimulatory effects, 1798
Sedimentation velocity and coefficient—determination of micellar properties of drugs, 981
Segregation, powders—effects of processing variables on uniformity of aspirin–lactose blends, 370
Selenadiazoles, pyridyl-1,2,3—synthesized and screened as antibacterial agents, 628
Selenium heterocycles—synthesis and antibacterial activity of pyridyl-1,2,3-thiadiazoles and pyridyl-1,2,3-selenadiazoles, 628
Self-association of hydrophobic solutes—micellar and nonmicellar patterns, discussion and equations, 972
Semisolids—evaluation of mathematical models for diffusion of drugs from semisolid systems, 1808
—evaluation of mathematical models used to describe drug diffusion, 351
Senna leaflets—extraction, separation, and identification of glycosides and aglycones by electropaperography, 1316
Serotonin antagonism—synthesis and screening of indanethylamines, 848
Serum albumin binding—clofibrate-related hypolipemic drugs, determined using 2-(4′-hydroxybenzeneazo)benzoic acid, thyroxine displacement, 203
of L-thyroxine—measured using 2-(4′-hydroxybenzeneazo)benzoic acid, spectrophotometry, 199
Shear cell data—method of estimating internal cohesion and exponential of Warren–Springs equation, tensile strength of compressed powders, 605
Shift reagents—deuterated tris(1,1,1,2,2,3,3-heptafluoro - 7,7 - dimethyl - 4,6 - octanedionato)europium III for NMR analysis of diastereoisomers of 7 - chloro - 3,3a - dihydro - 2 - methyl - 2*H*,9*H* - isoxazolo(3,2 - b)(1,3)benzoxazin - 9 - one, 1586
Silicon—atomic absorption determination in streptomycin, 1128
Silicone devices—release of ethynodiol diacetate, 515
elastomers—nicotine base permeation, comparison of dimethylpolysiloxane and trifluoropropylmethylpolysiloxane systems, diffusivity and solubility characteristics, application to timed-release preparations, 1849
fluids, dimethylpolysiloxane—effect on stability and dissolution of aspirin suspensions, 1630
matrix—chain-length effect on *in vitro* release of *p*-aminobenzoate, theory, equations, 1639
rubber—determination of dispersed progesterone and cholesterol, differential scanning calorimetry, 427
Silver sulfadiazine and related compounds—recrystallization and spectral characterization, structure determination, 948
sulfonamides—recrystallization and spectral characterization, structure determination, 948
Size reduction of pharmaceutical solids—review, 813
Skin abrasions—instrument for producing standardized abrasions, 106
Sodium aminosalicylate tablets—bioavailability of four commercially available products compared, 1431
Sodium benzoate–theophylline complexation—studied by NMR, 1319
Sodium–calcium subphase exchange—effects on phosphatidyl serine monolayers, 398
Sodium carboxymethylcellulose—effects of temperature and sodium chloride on drag reduction, 1164
Sodium, excretion—effect of single and multiple doses of cadmium, 563
fusidate—quantitative kinetic effects on microbial generation of *E. coli,* broth constituents, broth pH, and inoculum size considerations, 884
glycocholate—effects on absorption and metabolism of thiamine disulfide compounds, rats, 676
heparin—determination using instrumental method, compared to USP method, 1455
o-iodohippurate injection—analysis, high-speed liquid chromatography, 274
levothyroxine or sodium liothyronine tablets—analysis, partition chromatography and triiodide spectrophotometry, 763
penicillin G—TLC analysis as impurity in disodium carbenicillin, 603
salicylate and salicylic acid tablets—*in vitro* drug release compared, pH effect, 438
salicylate—effect on metabolism of fibroblasts treated with β-aminopropionitrile, proliferation, collagen synthesis, and mucopolysaccharide synthesis, 1211
Solids and solid dosage forms—stability, review, decomposition schemes, equations and rate constants, effect of moisture, 1
size reduction—review of milling theory, energy relationships, size distribution, rate, and time considerations, equipment, 813
Solids-loading, two mineral talcs and titanium dioxide—effect on moisture permeability coefficients of cellulose free films, 119
Solubility—73 aliphatic alcohols in water, correlated with surface areas and boiling points, 1858
Solubilizing effect of surfactants above and below CMC—aspirin in aqueous suspension, 559
Solutes, hydrophobic—micellar and nonmicellar patterns of self-association, discussion and equations, 972
semipolar nonelectrolyte (benzoic acid)—transfer entropy from pure liquid to aqueous solution, equations, 576
Solvents—carbon tetrachloride, interaction energies of complexation and cavity model, used to calculate the theoretical heats of complexation for chloranil, fluoranil, and tetrachlorophthalic anhydride complexes in solution, 1520
—contribution of carbon tetrachloride to the overall complex strength of methylbenzene complexes with chloranil, fluoranil, and tetrachlorophthalic anhydride, 1514
—effect on NMR spectra of penicillins, 143
Solvent systems, binary—benzene–acetonitrile system used for determination of half-neutralization potential of acids, effect of dielectric constant, 696
nonaqueous binary—relationship between composition of polar component and dielectric constant, equation, 81
Solvolysis—5-iodocytosine, kinetics and mechanisms, 899
Sorbitol—GLC analysis as the cyclic *n*-butylboronate, 1601
Spectrofluorodensitometry—analysis, flurazepam and metabolites, 1837
—analysis, hydroflumethiazide, 1793

Spectrophotofluorometry—analysis, procainamide and sulfadiazine using fluorescamine in presence of primary aliphatic amines, 1448
—analysis, thioridazine, trifluoperazine, and their sulfoxides in patient urine, 417
—determination of oxidized and reduced glutathione in tissue, 57
—reaction of *N*,3,3-trimethyl-1-phenyl-1-indanpropylamine hydrochloride with 7-chloro-4-nitrobenzofurazan, 78
Spectrophotometry—alkaloid assay, charge-transfer complexes, 1853
—analysis, hydralazine in plasma and urine, 225
—analysis, pivampicillin hydrochloride, 1299
—analysis, tetracycline and uranyl ion from antibiotic–uranyl acetate complex, 1451
difference—analysis of drugs in dosage forms, pH selection, hydrolysis and Schiff-base formation considered, examples, 1921
—improved assay of chlorthalidone in biological fluids, 1065
Spheronization process variables—effects of water content, extruder speed, extruder screen size, spheronizer speed, and spheronizer residence time on tablet properties, 285
Spironolactone—statistical comparison of two tablet dosage forms (25 and 100 mg), analysis, humans, 1248
Spray drying—magnesium carbonate, effect on acid-neutralizing velocity, model, equations, 1546
Spray-on bandages containing anti-infectives (neomycin sulfate and triclosan)—determination of *in vivo* effectiveness, guinea pigs, 1376
Spray processes—effects of hydraulic pressure and nozzle orifice size on delivery rates, 1171
Stability—aspirin in polyethylene glycol 400 diacetate and triethylene glycol diacetate, 1790
aspirin—in substituted and nonsubstituted polyhydric alcohols, effect of added water, 133
—cannabidiol in chloroform and ethanol, GLC, TLC, 970
of solids and solid dosage forms—review, decomposition schemes, equations and rate constants, effect of moisture, 1
—tetrahydrocannabinols, effect of pH, isolation and identification of degradation products, flame-ionization GLC, 1563
Staphylococcus aureus—effect of lincomycin, compared to lincomycin effects on *E. coli*, drug–bacteria reactions, generation curves, microbial kinetics, 1077
Starch—polarographic determination of sulfur dioxide content, 1458
Statistical analysis—comparison of spironolactone tablet dosage forms (25 and 100 mg), multivariate analysis, determination of discriminators, 1248
evaluation, content uniformity criteria—percentage of defectives method compared to joint use of deviation of lot mean content from label claim and standard deviation of within lot unit content, computer simulations, 183
Stearyl alcohol particles, acacia coated in gelatin solution—microencapsulation, wall thickness determined, surface appearance evaluated, 280
Stereospecific esterase in liver, kidney, and brain of rats, mice, and guinea pigs—*in vitro* hydrolysis of oxazepam succinate half-ester, 222
Sterility testing—comparison between seven media divided into two systems, 180 cultures of bacteria, yeasts, and molds, 23
Sterilization—FD&C dyes, FD&C lakes, and D&C dyes by γ-irradiation from ^{60}Co, 758
Steroid oximes—hydrolysis mechanisms and products, effects of ester substituents, 74
sapogenins—mass spectra and fragmentation patterns, 140
Steroids—analysis of progesterone injection by high-pressure liquid chromatography, 1591
cardiotonic and cardioactive guanylhydrazones—synthesis and biological activity, structure–activity relationships, digitalis receptor proposed, review, 1649
Sterols (campesterol, stigmasterol, and β-sitosterol)—isolation and characterization from *Cannabis sativa* L. (Indian variant), 154
free and bound—isolated and identified from marine algae (*Laminaria saccharina*, *Ascophyllum nodosum*, and *Furcellaria fastigiata*), 464
Stoichactis helianthus (sea anemone)—isolation and partial purification of toxin with direct hemolytic activity, 1478
Streptococcus faecalis—effect of acridines on electrophoretic mobility, 48
Streptomycin—atomic absorption determination of silicon content, 1128
—determination of disodium edetate dihydrate, atomic absorption spectroscopy, 1131
Structure–activity relationships—γ-aminobutyric acid-like agents, evidence supporting possible pharmacophore, molecular orbital calculations, 1435
—antimalarial agents, common structural feature of several classes discussed, 307
—decalin analogs of phenethylamines–histamine inhibition, kinetics and uptake of 5-hydroxytryptamine by rabbit platelets, 1714
—decalin analogs of phenethylamines–histamine inhibition, uptake and distribution of histamine by rabbit platelets, 1708
—digitalis analogs, model for digitalis receptor, review, 1649
—digitoxigenin analogs (14 substituents) and inhibition of Na^+,K^+-adenosine triphosphatase, 1391
—2,5-disubstituted 1,3,4-oxadiazoles–anticonvulsant activity, rats, 872
—group theory analysis, toxicity–molecular symmetry, 1068
—5-imidazolones, anticonvulsant activity, rats, inhibition of brain monoamine oxidase, 1740
—influence of physicochemical properties on drug–receptor combinations, 300
—monoamine oxidase inhibitory property–anticonvulsant activity, 1152
—*para*-substituted *N*-benzenesulfonyl derivatives of anthranilic acid, 615
—piperazinoquinazolones–anticonvulsant activity, rats, 356
—pyrazolines–anticonvulsant activity, rats, 1948
—substituted piperidino carbamides–CNS effects, 1227
Structure elucidation—*N*-acetylaporphine alkaloids by IR, UV, NMR, and circular dichroism, 1338
Styrylquinoline derivatives—synthesis of benzoxazinoquinolines and naphthoxazinoquinolines, 1314
Succinylsulfathiazole—preparation, characterization, and interconversion of different crystal forms, kinetics, Arrhenius plots, 1103
Sugars—effect on analysis of isoniazid syrup, 1303
Sulfadiazine—spectrophotofluorometric analysis with fluorescamine in presence of primary aliphatic amines, 1448
Sulfa drugs—potentiometric titration using 3-methyl-2-oxazolidone as solvent, relative acid strengths determined, 1136
Sulfameter—bioavailability of two crystal forms, human urinary excretion data, 861
Sulfamethazine—adsorption of benzoic acid, suppression by polyvinylpyrrolidone, effect of contact time, 1788
—benzoic acid adsorption, pH and citrate-ion effects, 956
Sulfamethoxazole and trimethoprim—analysis in plasma, TLC and spectrodensitometric method, compared to Bratton–Marshall reaction, 1202
Sulfanilamide—densities, refractive indexes, and X-ray diffraction data for four polymorphic forms, 145
—effect of γ-radiation on intestinal absorption, rats, 645
Sulfinpyrazone—mass spectrum, fragmentation pathways, mechanisms, 1896
Sulfonamides—adsorption of benzoic acid on sulfamethazine, pH and citrate-ion effects, 956
—bioavailability of two crystal forms of sulfameter, human urinary excretion data, 861
—relationship between structure and binding to bovine serum albumin, fluorescence probe technique, binding constants, 27
silver—recrystallization and spectral characterization, structure determination, 948
(sulfadiazine, sulfamerazine, and sulfamethazine)—effect of pyrimidine ring methyl on interphase transfer, water–*n*-octanol system, 240
(sulfamethazine)—effect of interface composition on interphase transfer, water–alcohol systems, 245
Sulfones, aryl—synthesis and screening of bis[6-(2-phenylcinchoninic acid)] sulfone diethyl ester as a potential antimalarial agent, 156
Sulfonylureas—binding to plasma proteins, fluorescence probe technique, 570
Sulfur dioxide—effect on residency time of 2,3,5-triiodobenzoic acid in lungs of rats, 1759
—polarographic determination in starch and pharmaceutical materials, 1458
Sunscreening agents—effect on color stability (shelflife) of tablets coated with FD&C Blue No. 1, 1927
—effect on color stability (shelflife) of tablets coated with FD&C Red No. 3, 129
Suppositories, acetaminophen—effect of polyethylene glycol vehicle dielectric properties on drug absorption, 44
Surface activity—four prostaglandins in presence of insoluble monomolecular films, π–*A* isotherms, 1540
areas—73 aliphatic hydrocarbons and alcohols, correlated with solubility in water and boiling points, 1858
dyeing—determination of sorption rates of five FD&C water-soluble dyes on soft gelatin capsules, 639
mottling of colored tablets—measurement, photographic technique and equipment, 126
Surfactants, adsorption—radioisotope technique for direct estimation of hexadecyltrimethylammonium ion at air–water interface, specific ion effects, 380
—CMC determination of polysorbates using surface tension method, values compared to other techniques, 136
—effects of poloxalkol and polysorbate 80 on ascorbic acid aerobic oxidation kinetics, 1240
effect—solubilization of aspirin in aqueous suspension, 559
—effects on intramuscular absorption rate, water-soluble, micelle-free drugs, plasma levels, rat, 580
—influence of hydrophilic–lipophilic balance values on ephedrine, absorption and release from emulsified systems, oral administration, dogs, *in vivo–in vitro* correlations, 666
nonionic, effect—benzocaine and homolog hydrolysis, solubility, and UV absorbance, 712
(sodium glycocholate, sodium lauryl sulfate, and polysorbate 80)—effects on absorption and metabolism of thiamine disulfide compounds, rats, 676
Suspension polymerization—formation of timed-release dosage forms, polystyrene beads containing acetaminophen, 440
Sweetness—model interaction energy calculations used to study sweet taste receptor, 1722
Swertia lawii—natural occurrence of erythrocentaurin and gentianine, 944
Swertianolin—isolation, characterization from *S. purpurascens*, 1286
Swertia purpurascens Wall. (Gentianaceae)—isolation, chemical characterization of three tetraoxygenated xanthone-*O*-glucosides, 1286

T

Tablet disintegrants—trapa starch compared to

wheat, potato, and maize starch, 473
Tableting—effect of magnesium lauryl sulfate on ejection force and compressibility of four direct compression fillers and a wet granulation, compared to magnesium stearate, 289
Tablets—analytical method presented to determine pore characteristics using log-normal distribution, 774
and capsules, content uniformity—comparison of criteria for determination, computer simulations, statistical evaluations, 183
dissolution (pentobarbituric acid)—comparison of USP, Levy beaker, and magnetic basket apparatuses, statistical analysis, 925
—effects of spheronization process variables on dissolution rate and hardness, 285
nitroglycerin sublingual—development of stable tablet, nitroglycerin interacted with selected macromolecules, 1810
slow release—*in vitro* release from homogeneous insoluble matrix, theory and equations relating release and tablet shape, 725
slow release—release of salicylic acid and ephedrine from homogeneous insoluble matrix (stearyl alcohol), experimental relationship between release and tablet shape, 732
tensile strength—new flexure test for determination, apparatus and equations, 933
—three methods for coating with sunscreening agents, effect of agents on color stability (shelflife) of FD&C Blue No. 1, 1927
—three methods for coating with sunscreening agents, effect of agents on color stability (shelflife) of FD&C Red No. 3, 129
with colored surfaces—measurement of mottling, photographic technique and equipment, 126
Talc USP—determination of chrysotile as impurity, 268
Taraxerol—isolation and identification from *Myrica cerifera* root bark, 958
Taraxerone—isolation and identification from *Myrica cerifera* root bark, 958
Tasteless erythromycin derivatives—synthesis, bioactivity, 842
Technology, pharmaceutical—sterility, dosage forms, cosmetics, packaging equipment, 995
Telemetry—evaluation as technique for determining toxicity of aerosol preparations, 1892
Temperature, human body and environmental—effects on physiology and physicochemical properties, absorption, distribution, and metabolism of drugs, review, 1345
Tensile strength, compressed powders—determined by transverse compression of squares and disks and direct tensile stressing, incompatibility as end-point on shear yield locus, internal cohesion estimated, Warren–Springs-type equation, relevance to yield locus, 605
tablets—new flexure test, apparatus and equations, 933
Terremutin—isolation and identification from *A. cervinus,* 1632
Tetracycline—complex formation with uranyl acetate, analysis of both antibiotic and uranyl ion, 1451
—NMR spectra, assignment of additional protons, 1144
Tetrahydrocannabinol—effect on hindlimb tonic extension, four vehicles and four routes of administration compared, mice, 939
—metabolism by mouse hepatic microsomes, identification of 6α-hydroxytetrahydrocannabinol, 1173
—physicochemical properties, solubility, and protein binding, 1056
—stability, effects of pH, isolation and identification of degradation products, mechanisms, flame-ionization GLC, 1563
Tetrahydrocannabivarin—isolation and characterization from *Cannabis sativa* L. (Indian variant), 154
Tetrahydroquinazolines—synthesis, evaluated as xanthine oxidase inhibitors, 1158
Thalicarpine (antineoplastic alkaloid)—binding to calf thymus DNA, N—O—O triangulation structure, 474
Thebaine—analysis of content in new Arya II population of *P. bracteatum,* 1331
Theobromine—structure and reactivity of complexes with methyl *trans*-cinnamate, theoretical calculation by maximizing binding energy, 1524
Theophyllinate—structure and reactivity of complexes with methyl *trans*-cinnamate, theoretical calculation by maximizing binding energy, 1524
Theophylline—effect of ethanol on intestinal absorption, rat small intestine, 829
—GLC determination in biological fluids in presence of metabolites and other xanthines, 1283
–sodium benzoate complexation—studied by NMR, 1319
Thermodynamic parameters—interphase transfer of unionized sulfonamides (sulfadiazine, sulfamerazine, and sulfamethazine), water–*n*-octanol system, 240
—interphase transfer of unionized sulfonamides (sulfamethazine), water–alcohol systems, 245
Thiamine disulfide compounds—effects of biosurfactants and synthetic surfactants on absorption and metabolism, rats, 676
Thiaxanthones—synthesized containing methyl group *para* to diethylaminoethylamino side chain as possible schistosomicidal agents, 946
Thiazide diuretics—effects of prolonged antihypertensive therapy, literature review of acute and chronic studies, 1497
Thiazine dyes—antagonism of opioid lethality, mice, 451
Thiazolidones—synthesized and screened for anticonvulsant activity, 960
Thioamides—determination of ethionamide using 2,3-dichloro-1,4-naphthoquinone, 1471
Thioglycolate (sodium)—effect on antibacterial efficiency of five mercurial compounds, 681
Thioridazine, trifluoperazine, and their sulfoxides—spectrophotofluorometric analysis in patient urine, interference of chlorpromazine, imipramine, desipramine, biperiden, and haloperidol considered, 417
Thiosemicarbazides, phosphorylated—synthesis as potential anticancer agents, 1736
—reagent in colorimetric assay of epinephrine, 1301
substituted—synthesis, anticonvulsant activity, inhibition of respiratory activity, rats, 872
Thyroid hyperfunction—triiodothyronine radioimmunoassay using 8-anilino-1-naphthalenesulfonic acid as fluorescent probe, 1214
L-Thyroxine binding to serum albumins—measured using 2-(4′-hydroxybenzeneazo)benzoic acid, spectrophotometry, 199
Thyroxine—blood level following administration of aqueous solution, elixir, and tablet formulations of iodinated glycerol, humans, 1323
Timed-release dosage forms—preparation, suspension polymerization, 440
formulations—comparison of dimethylpolysiloxane and trifluoropropylmethylpolysiloxane as vehicles, nicotine base permeation, 1849
tablets—*in vitro* slow release from homogeneous insoluble matrix, effect of tablet shape, theory, equations, 725
tablets—slow release of salicylic acid and ephedrine from homogeneous insoluble matrix (stearyl alcohol), effect of tablet shape, 732
tablets, wax matrix—water-soluble drug release (phenylpropanolamine hydrochloride), mild agitation conditions, mechanisms, 1748
Titrations, indirect nonaqueous—hydrochlorides of nitrogeneous bases, compared to compendial methods, 1767
nonaqueous—procainamide hydrochloride, interference of acetic anhydride, 1645
spectrophotometric—determination of edetic acid in ophthalmic solutions, 1133
Titrimetry—benzene–acetonitrile mixtures of varying dielectric constant used to determine half-neutralization potential of acids, 696
differentiating nonaqueous—analysis of acetaminophen–barbiturate in combination, 89
iodine, bromometric, nitrite, and nonaqueous—analysis, isoniazid powder, tablets, and syrup, comparative study, 1303
nonaqueous—analysis, methaqualone and methaqualone hydrochloride tablets and capsules, 1294
nonaqueous and nitrite—analysis, primary aromatic amines (procainamide hydrochloride), 919
TLC—analysis, salicylazosulfapyridine, compared to literature spectrophotometric method, 1290
—analysis, sodium penicillin G (sodium benzylpenicillin) in disodium carbenicillin, 603
and spectrodensitometry—analysis, trimethoprim and sulfamethoxazole in plasma, 1202
—separation and identification of diastereomers of D-ergonovine maleate, 1141
—separation, salicylazosulfapyridine and three impurities, 1296
spectrofluorodensitometry—analysis, flurazepam and metabolites in blood, 1837
spectrofluorodensitometry—analysis, hydroflumethiazide in plasma and urine, 1793
Tocopherol—improved microdetermination, rat plasma, 1084
Tolonium chloride—antagonism of opioid lethality, mice, 451
Topical films, dry hydrophilic—formulation and *in vitro* evaluation of anti-infective dry foams, 1483
Toxicity, aerosols—evaluation of telemetry as technique for determination, 1892
—dependence on molecular structure, group theory analysis of various substances, 1068
—methacrylate monomers, effects on respiratory and cardiovascular functions, anesthetized dog, 376
oral—effect of bile salts on decamethonium bromide lethality in rats, 790
—pharmaceutical and cosmetic aerosols, review, 1815
Transfer of unionized sulfonamides (sulfadiazine, sulfamerazine, and sulfamethazine)—effect of pyrimidine ring methyl in interphase transfer, 240
of unionized sulfonamides (sulfamethazine)—effect of interface composition on interphase transfer, 245
Transport and membrane permeation—review of theory and effect of permeant and barrier properties, 479
drug—rapid *in vitro* method for measuring steady-state drug release flux, ethynodiol diacetate from solid silicone polymer vaginal devices, 365
mechanism—β-lactam antibiotics across everted rat gut, 1803
rates—effect of cholate concentration on cholesterol uptake by isolated rabbit intestine, new apparatus described and tested, 1703
Trapa bispinosa starch—compared to wheat, potato, and maize starch as a possible tablet disintegrant, 473
Trichloromonofluoromethane—partition coefficient in six solvents, 532
Triethylene glycol diacetate—stability of aspirin at three temperatures, 1790
Trifluoperazine and metabolites—isolated from rat tissue, identified by mass spectrometry, synthesis, 1842
thioridazine, and their sulfoxides—spectrophotofluorometric analysis in patient urine, interference of chlorpromazine, imipramine, desipramine, biperiden, and haloperidol considered, 417
Trifluoropropylmethylpolysiloxane — nicotine base permeation, compared to dimethylpolysiloxane, diffusivity and solubility characteristics, timed-release formulations considered, 1849
2,3,5-Triiodobenzoic acid, radiolabeled—inhalation and half-life in lungs, normal and sulfur dioxide-exposed rats, 1759
Triiodothyronine—use and effects of 8-anilino-1-

naphthalenesulfonic acid, radioimmunoassay, 1214
Trimethoprim and sulfamethoxazole—analysis in plasma, TLC and spectrodensitometric method, compared to Bratton–Marshall reaction, 1202
Trimethylanilinium hydroxide—on-column methylation of cocaine, GLC identification, 1963
1,2,5-Trimethyl-3-arylpyrazolium perchlorates—polarographic reduction, $E_{1/2}$ values correlated with antimicrobial minimum inhibitory concentrations, 937
Trimethylhydrazonium ester—intermediate in synthesis of bifunctional acid-esters, 1155
***N*,3,3-Trimethyl - 1-phenyl-1-indanpropylamine hydrochloride**—reaction with 7-chloro-4-nitrobenzofurazan, isolation and characterization of derivative, application to spectrophotofluorometry, 78
Trimethylphosphine oxide—effects on percutaneous absorption of corticosteroids, rat, 793
Tris(1,1,1,2,2,3,3 - heptafluoro - 7,7 - dimethyl - 4,6 - octanedionato)europium III shift reagent—NMR analysis of 7 - chloro - 3,3a - dihydro - 2 - methyl - 2*H*,9*H* - isoxazolo(3,2 - b)(1,3)benzoxazin - 9 - one diastereoisomers, 1586
Triterpenoid saponins containing acylated β-amyrin aglycone structure—antiviral activity, 471
Triturations, digoxin–lactose and hydrocortisone–lactose—effect of simple blending, solvent deposition, and spreading by frictional pressure on dissolution rates, 117
Tropicamide corneal absorption—effect of prebuffering and/or adding viscolizers and surfactant, rabbits, 721
—effects of anionogenic, cationogenic, and nonionic polymers and pH on bioavailability and mydriatic response, 1582
Tryptamine-related compounds—synthesis and screening of indanethylamines as monoamine oxidase inhibitors and serotonin antagonists, 848
Tuberculin purified protein derivative—interaction of 8-hydroxyquinoline sulfate with solution components, binding of 8-hydroxyquinoline, 1205
Tubular carbon electrode—determination of methyldopa in pharmaceutical dosage forms and biological fluids, 954

U

Ultracentrifugation—determination of molecular weight, size, and molecular interactions of drug micelles, 981
Ultrafiltration, continuous—measurement of sodium urate and methyl orange displacement from human serum albumin by sodium salicylate, 249
micro—technique for drug–protein binding determination in plasma, 1364
Ultrasonic instruments—temperature profiles of heat production during insonation, 114
Uranyl acetate—complex formation with tetracycline, analysis of both antibiotic and uranyl ion, 1451
Urinary bladder hyperplasia—*N*-2-fluorenylacetamide feeding in mice, dose–response predictability, modification by sex, 1946
excretion—hydralazine-^{14}C after oral administration, humans, 225
excretion—metabolites of *N,N*-dimethyl-*N'*-(*p*-phenoxyphenyl)sulfamide, oral administration, rats, dogs, humans, 539
metabolites—isolation and identification of DL-1,2 - bis[5 - (6) - methoxy - 2 - benzimidazolyl] - 1,2 - ethanediol metabolites, mice, 1312
pH—effects on excretion of doxycycline, single-dose and multiple-dose regimens, half-lives, humans, 1256
UV absorption—effect of maleic acid in compendial assays for antihistamine maleate salts, 1604
UV **spectrophotometry**—analysis, acetaminophen, chlorpheniramine maleate, and dextromethorphan hydrobromide mixtures after high-speed liquid chromatographic separation, 430
—analysis, homatropine methylbromide in complex pharmaceutical syrups, 599
—analysis, methadone in urine and tissues, 741
—determination of photoelectron spectra of four *N*-chlorinated piperidines, correlation of nitrogen lone-pair stability and antimicrobial activity, 1387
—microdetermination of diphenylhydantoin in plasma and serum, 1795

V

Vaginal devices—method for measuring drug release from polymer matrix, 365
odors—method and GLC assay technique for evaluating odor changes, suppository induced, 36
Vanadyl complexes—iodochlorhydroxyquin and diiodohydroxyquin, complexing properties investigated using electronic absorption spectra, 1866
Vehicle polarity—effect of systematic alteration of vehicle composition on release rates of drugs, equations, 1276
Vehicles—diffusion of benzocaine from various ointment bases, 1402
—effect on tetrahydrocannabinol anticonvulsant activity, comparison of four vehicles and four routes of administration, hindlimb tonic extension, mice, 939
(lanolin and lanolin derivatives)—*in vitro* release of salicylic acid, influence of drug concentration, 1779
Ventricular rate slowing—used as pharmacological response intensity parameter for studying variable digoxin absorption, 411
***Vinca* alkaloids**—isolation, structure identification of vincoline, 536
Vincoline—isolation, structure identification from *Catharanthus* and *Vinca* alkaloids, 536
Vindolinine—isolation and identification from *C. trichophyllus* roots, cytotoxic activity, 1419
Viscosity effect of ophthalmic vehicle (methylcellulose)—bioavailability of pilocarpine nitrate, rabbits, 1218
Vitamin E—improved microdetermination, rat plasma, 1084
Vitamins—high-speed liquid chromatographic analysis of riboflavin in commercial multivitamin preparations, 588

W

Warfarin—comparative pharmacokinetics, relationships between distribution, elimination, and activity, biological half-life, volume of distribution, 868
—effect of plasma protein binding on elimination, pharmacokinetics, 805
—GLC determinations in human plasma, 1579
—GLC determination in plasma, 1725
Wax matrix (timed-release tablet)—release rate of phenylpropanolamine hydrochloride, mechanisms, 1748

X

Xanthine derivatives—GLC determination of theophylline in biological fluids in presence of metabolites and other xanthines, 1283
oxidase—synthesis of four and evaluation of 23 quinazolines and 5,6,7,8-tetrahydroquinazolines as inhibitors, 1158
Xanthium strumarium L. (Compositae)—isolation and characterization of a hypoglycemic agent, 1166
Xanthone-*O*-glucosides—isolation from *S. purpurascens*, 1286
X-ray diffraction—four polymorphic forms of sulfanilamide, 145

Y

Yield locus—testing of compressed powders, tensile strength role reevaluated, 605

Z

Zaluzania robinsonii (Compositae)—isolation and identification of zaluzanin C as tumor-inhibiting agent, 1321
Zaluzanin C—isolation and identification from *Z. robinsonii,* tested for tumor inhibitory activity, 1321
Zeta-potential—calculated for *Streptococcus faecalis,* effect of acridines, 48
Zinc tannate complex with naltrexone—prepared as prolonged-action narcotic antagonist, 159
Zoanthids—antitumor activity of crude extracts, palytoxin as potent antitumor component, 257